

# **CHAPTER 9**

## **Labour Department**

### **Occupational safety and health**

**Audit Commission  
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*This audit review was carried out under a set of guidelines tabled in the Provisional Legislative Council by the Chairman of the Public Accounts Committee on 11 February 1998. The guidelines were agreed between the Public Accounts Committee and the Director of Audit and accepted by the Government of the Hong Kong Special Administrative Region.*

Report No. 69 of the Director of Audit contains 9 Chapters which are available on our website at <http://www.aud.gov.hk>

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# OCCUPATIONAL SAFETY AND HEALTH

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# OCCUPATIONAL SAFETY AND HEALTH

## Executive Summary

1. “Safety and Health at Work” is one of the Labour Department (LD)’s programme areas. The aim of the programme area is to ensure that risks to the safety and health of people at work are properly managed by legislation, enforcement, education and publicity efforts. For 2017-18, the estimated expenditure for the programme area is \$510 million.

2. Occupational safety and health is regulated mainly through: (a) the Factories and Industrial Undertakings Ordinance (FIUO – Cap. 59); and (b) the Occupational Safety and Health Ordinance (OSHO – Cap. 509). The FIUO was enacted in 1955 to provide for the safety and health protection for workers in the industrial sector. It applies to industrial undertakings such as factories, construction sites and catering establishments. The OSHO was enacted in 1997 to extend the safety and health protection of employees to the majority of economic activities. It covers almost all workplaces.

3. The Occupational Safety and Health Branch (OSHB) of the LD is responsible for work related to occupational safety and health. As at 31 March 2017, the OSHB had a staff establishment of 642. The Audit Commission (Audit) has recently conducted a review of the LD’s work in occupational safety and health.

### **Occupational safety: inspection and enforcement**

4. *Need to strengthen enforcement of notification requirement for Notifiable Workplaces.* The OSHB is responsible for carrying out inspections of workplaces and initiating enforcement action where necessary. There are two types of workplaces, namely building and engineering construction (BEC) workplaces (i.e. construction sites) and non-BEC workplaces. As at September 2017, information on 36,692 BEC workplaces and 141,206 non-BEC workplaces was kept in the OSHB’s database. The LD’s focus of inspection is placed on: (a) BEC workplaces; and (b) non-BEC workplaces subject to statutory workplace notification requirements

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(hereinafter referred to as Notifiable Workplaces). The person having the management or control of a Notifiable Workplace is required to notify the LD of the workplace before commencement of operation. Audit examined the LD's investigations of 20 accident cases that occurred in 2016 at Notifiable Workplaces and found that the persons concerned of eight (40%) Workplaces had not submitted the required statutory notifications to the LD before the LD's investigations. These eight Workplaces had commenced operation for 90 days to 18 years and 5 months. Audit checked the records for the period January 2012 to July 2017 and noted that no prosecution had been taken by the LD against non-compliance of the notification requirement (paras. 2.2 to 2.5).

5. ***Need to review notification requirement for BEC workplaces.*** Although the construction industry is accident-prone, unlike the notification requirement for Notifiable Workplaces, notification of BEC workplaces is only required to be submitted within seven days after commencement of the construction work. The current notification requirement for BEC workplaces leaves a time gap between the commencement of work and the notification submitted to the LD (para. 2.8).

6. ***Need to review the list of hazardous trades.*** The LD gives inspection priorities to workplaces of 23 hazardous non-BEC trades, which are identified by the LD according to the assessment of the prevailing risks. The last review of the list of hazardous trades was completed in January 2013. The review recommended that similar review should be conducted at a three-year interval. Not until July 2017 did the LD commence a new round of review, which may take about one and a half years to complete (paras. 2.3, 2.9 and 2.10).

7. ***Need to clear backlog and improve documentation for inspection work.*** The LD has a bring-up system for workplace files to be brought up for inspections. If the file is not brought up and assigned to an inspecting officer on the scheduled date, it is counted as a backlog. Audit noted that, as at 31 March 2017, there were 6,074 backlog cases of inspection on inactive BEC workplaces (i.e. construction sites where works were carried out intermittently or sites under defects liability period), and 23,414 backlog cases on non-BEC workplaces. The LD had not monitored whether inspections were carried out according to schedule. Audit examined 80 inspections carried out by the LD in the period from 1 April 2016 to 31 March 2017 and found that 24 (30%) inspections were conducted more than 90 days after the workplace files were brought up. Audit also noted that inspecting officers only documented the irregularities identified during



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inspections, but not the details of inspection work carried out, such as the work processes examined and the results of such examinations. Moreover, the LD reported in its Controlling Officer's Report (COR) the number of inspections conducted by the Operations Division of the OSHB under the FIUO and the OSHO. In the period from 2012 to 2016, the reported number of inspections carried out per year ranged from 123,115 to 131,339. Audit examination revealed that if an inspection was conducted jointly by more than one inspecting officer, the LD counted the number of inspecting officers as the number of inspections conducted. Had an inspection been counted as one irrespective of how many inspecting officers took part in the inspection work, the number of inspections carried out per year during the period would have ranged from 44,756 to 73,565 (paras. 2.15 to 2.17, 2.19, 2.22 and 2.24).

8. ***Need to strengthen deterrent effect of occupational safety legislation.*** In the period from 2012 to 2016, the average amount of fines imposed by the court on cases convicted under the FIUO and the OSHO had increased by 47% from \$7,723 in 2012 to \$11,390 in 2016. Audit analysis of the highest amount and the average amount of fines under the five most common offences of the FIUO and the OSHO revealed that notwithstanding the increase in amount of fines, the highest amount and the average amount were significantly below the maximum amount stipulated in the legislation (para. 2.30).

### Occupational safety: training

9. ***Need to improve planning of inspection on mandatory safety training courses.*** Every person engaged in specific high risk sectors, activities or machine operations is required to complete the relevant mandatory safety training (MST) course organised by a training course provider (TCP). In 2016, there were 146 TCPs providing 704 MST courses. The LD conducted 225 inspections on the 146 TCPs and issued 17 warning letters and 5 directions. Of the 225 inspections, 182 (81%) were conducted at the time when there was no course session. As a result, many aspects of the courses could not be observed. Instead, the LD inspected the TCP's documentation (paras. 3.2, 3.4 and 3.6).

10. ***Need to expedite implementation of improvement measures recommended by the 2009 review on MST courses.*** In 2009, the LD conducted a review to devise improvement measures on recognition and monitoring of MST courses. In April 2011, the LD proposed to the Legislative Council Panel on Manpower a

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two-phase approach to implement the improvement measures. Up to August 2017, two of the three Phase One improvement measures, namely the standardisation of course contents and the centralisation of issuance of examination papers for the MST courses, had not been fully implemented. Furthermore, there was also no timetable to implement these measures and the Phase Two measures (paras. 3.7 to 3.9).

11. ***Some Registered Safety Auditors are not Registered Safety Officers.*** The FIUO and its subsidiary regulations stipulated that the contractors or proprietors of some workplaces are required to employ an Registered Safety Officer (RSO) to assist in the promotion of the occupational safety and health, and/or an Registered Safety Auditor (RSA) to audit the required safety management system. To register as an RSA, a person shall be an RSO and fulfil the specified requirements. The designation of an RSA is valid for life while the registration of an RSO is valid for a period of four years subject to renewal or revalidation. Some RSAs will cease to be RSOs after they have become RSAs if they choose not to apply for renewal or revalidation of the RSO registration upon expiry. The lists of RSOs and RSAs as at 31 May 2017 indicated that 29 (2.3%) of the 1,273 RSAs were not RSOs (paras. 3.12, 3.14 to 3.16 and 3.18).

### Occupational health

12. ***Need to improve arrangements for medical examination of radiation workers.*** Every year, the Kwun Tong Occupational Health Clinic (KTOHC) reserves a number of sessions exclusively for carrying out medical examinations of workers prone to exposure to radiation. For each session, 30 examinations can be carried out. Audit found that the utilisation of the reserved sessions was decreasing in the period from 2012 to 2017 (up to June): (a) the annual average number of no-show cases per session ranged from 2.7 to 4.2 (11% to 15% of the booked slots); and (b) the average number of booked examinations in each session decreased from 27.8 to 22.9 and the number of sessions in which not more than 20 examinations were carried out increased from 17% to 56% of the total number of sessions. Moreover, the law stipulates that the examinations carried out for the workers' first employment would be provided free of charge, but it does not stipulate that the periodic examinations after the workers' first employment would be provided at a charge or free of charge. Audit noted that workers and their employers were not required to pay any fee for the periodic examinations (paras. 4.4, 4.6 to 4.8, 4.10 and 4.11).

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13. *Need to monitor progress of workplace inspections.* The LD did not monitor the number of outstanding inspections and the delay in carrying out inspections after they were brought up for inspection. Audit reviewed 30 outstanding inspections on occupational health as at 30 June 2017 and found that all of them had been outstanding for more than six months after they were brought up. The outstanding periods ranged from 7 months to 4.25 years, averaging 2.17 years. Audit also reviewed 24 inspections conducted by the LD in the period from July 2016 to June 2017 and found that there were delays in 13 (54%) of the 24 inspections. The delay ranged from 4 days to 3 years, averaging 11 months (paras. 4.18 to 4.20).

14. *Need to improve reporting of performance indicators in COR.* For 2016, the LD reported in the COR that it had achieved 22,629 “investigations/surveys/examinations/assessments/clinical consultations” without the breakdown information. Audit noted that the number comprised 2,983 investigations, 7,018 surveys, 1,471 medical examinations, 713 assessments and 10,444 clinical consultations (para. 4.23).

### Audit recommendations

15. **Audit recommendations are made in the respective sections of this Audit Report. Only the key ones are highlighted in this Executive Summary. Audit has recommended that the Commissioner for Labour should:**

#### *Occupational safety: inspection and enforcement*

- (a) **step up measures to strengthen the enforcement of the notification requirement for Notifiable Workplaces (para. 2.11(a));**
- (b) **review the reasonableness of the submission deadline for notification of construction work and if necessary, tighten the deadline (para. 2.11(c));**
- (c) **closely monitor the progress of the review of the list of hazardous trades to ensure that it is completed in a timely manner (para 2.11(d));**

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- (d) **take measures to ensure that there is no delay in bringing up cases for inspection and conducting inspections after the cases were brought up for inspection (para. 2.26(a));**
- (e) **take measures to clear the existing backlog of inspections as soon as practicable (para. 2.26(b));**
- (f) **improve the documentation of the inspection work performed (para. 2.26(c));**
- (g) **separately disclose in the COR the number of workplaces inspected (para. 2.26(g));**
- (h) **monitor closely the need to review the labour legislation with a view to strengthening the deterrent effect of the legislation (para. 2.32);**

### *Occupational safety: training*

- (i) **arrange inspections on the TCPs during time period when there are course sessions taking place as far as practicable (para. 3.10(a));**
- (j) **expedite the implementation of the improvement measures recommended by the 2009 review on MST courses (para. 3.10(b));**
- (k) **review whether there is a need to revise the Factories and Industrial Undertakings (Safety Management) Regulation to address the shortcomings that some RSAs are not RSOs (para. 3.25(a));**

### *Occupational health*

- (l) **in collaboration with the Director of Health, take measures to reduce the no-show rate of radiation workers for medical examinations (para. 4.16(a));**
- (m) **monitor the utilisation of time slots reserved for medical examinations for radiation workers to ensure that the clinical resources are optimally utilised as far as practicable (para. 4.16(b));**

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- (n) **in collaboration with the Director of Health, review the justifications for not charging radiation workers or their employers for periodic medical examinations carried out at the KTOHC after the workers' first employment (para. 4.16(c));**
- (o) **closely monitor the progress of workplace inspections (para. 4.21(a));**
- (p) **take measures to minimise the number of outstanding inspections in future (para. 4.21(c));**
- (q) **ascertain the number of existing backlog inspections and take effective measures to clear the backlog as soon as practicable (para. 4.21(d)); and**
- (r) **with a view to enhancing transparency, consider reporting separately in the COR the number of investigations, surveys, examinations, assessments and clinical consultations (para. 4.25(a)).**

## **Response from the Government**

16. The Commissioner for Labour agrees with the audit recommendations.



## **PART 1: INTRODUCTION**

1.1 This PART describes the background to the audit and outlines the audit objectives and scope.

### **Background**

1.2 “Safety and Health at Work” is one of the Labour Department (LD)’s programme areas. The aim of this programme area is to ensure that risks to the safety and health of people at work are properly managed by legislation, enforcement, education and publicity efforts. For 2017-18, the estimated expenditure for the programme area is \$510 million.

### ***Major legislations***

1.3 Occupational safety and health is regulated mainly through the following legislations:

- (a) ***Factories and Industrial Undertakings Ordinance (FIUO — Cap. 59)***. The FIUO was enacted in 1955 to provide for the safety and health protection for workers in the industrial sector. It applies to industrial undertakings, such as factories, construction sites, catering establishments, cargo and container handling undertakings, repair workshops and other industrial workplaces. Under the FIUO, there are 31 sets of subsidiary regulations covering various aspects of work activities in industrial undertakings. The subsidiary regulations prescribe detailed safety and health standards on work situations, plant and machinery, processes and substances; and
  
- (b) ***Occupational Safety and Health Ordinance (OSHO — Cap. 509)***. The OSHO was enacted in 1997 to extend the safety and health protection of employees to the majority of economic activities. It empowers the Commissioner for Labour to make regulations prescribing occupational safety and health standards for working environment. It covers almost all workplaces. In addition to factories, construction sites and catering establishments, other places, such as offices, laboratories, shopping arcades

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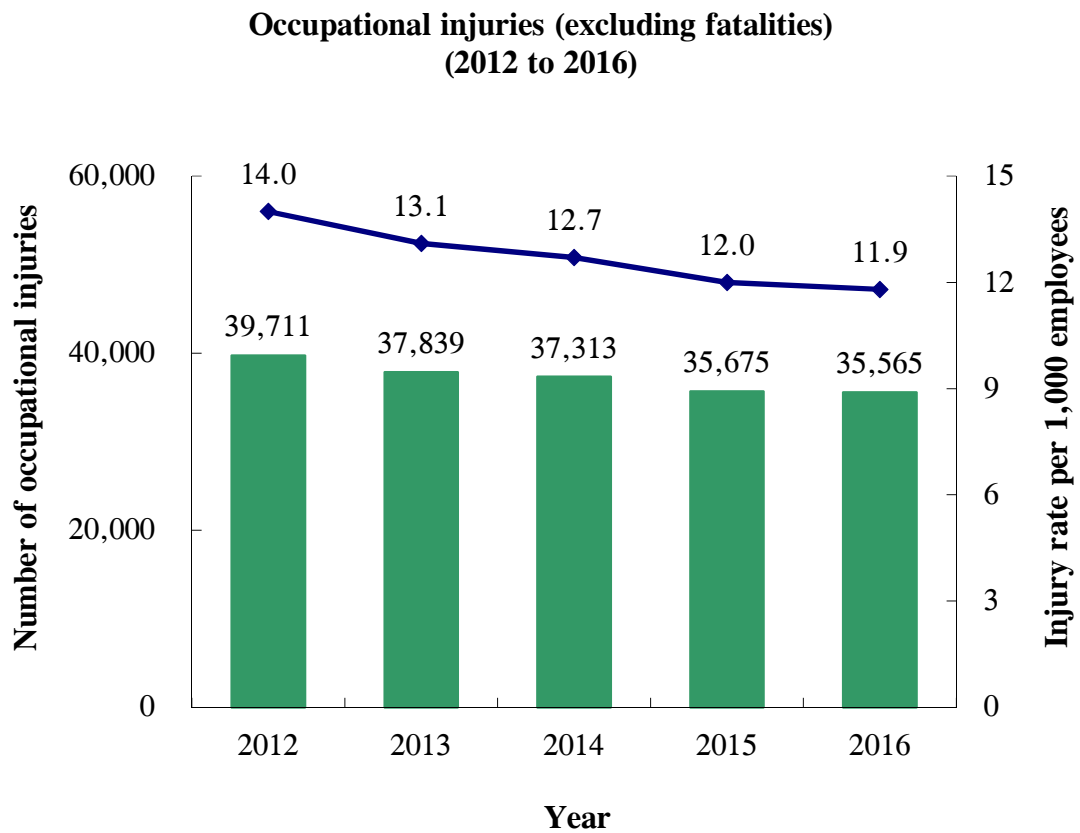
and educational institutions also come under the ambit of the OSHO. Two sets of subsidiary regulations were made under the OSHO setting out the basic requirements for accident prevention, fire precaution, workplace environment control, hygiene at workplaces, first aid, proper use of display screen equipment as well as what employers and employees are expected to do in manual handling operations.

### *Occupational injuries and fatalities and occupational diseases*

1.4 Figure 1 shows the statistics on occupational injuries (excluding fatalities) for the period from 2012 to 2016. The statistics refer to the numbers of occupational injuries (excluding fatalities) resulting in incapacity for work for a period exceeding three days reported under the Employees' Compensation Ordinance (ECO — Cap. 282). The number of occupational injuries (excluding fatalities) includes industrial injuries (excluding fatalities), which refer to injuries arising from industrial activities in industrial undertakings as defined under the FIUO. Other occupational injuries (excluding fatalities) are cases including non-industrial injuries (excluding fatalities), cases outside Hong Kong, and cases that happened on vessel. Figure 2 shows the statistics on industrial injuries (excluding fatalities) for the same period. As shown in Figures 1 and 2, the number of occupational injuries (excluding fatalities) decreased by 10.4% from 39,711 in 2012 to 35,565 in 2016 and the number of industrial injuries (excluding fatalities) decreased by 13.2% from 12,518 in 2012 to 10,865 in 2016.



Figure 1

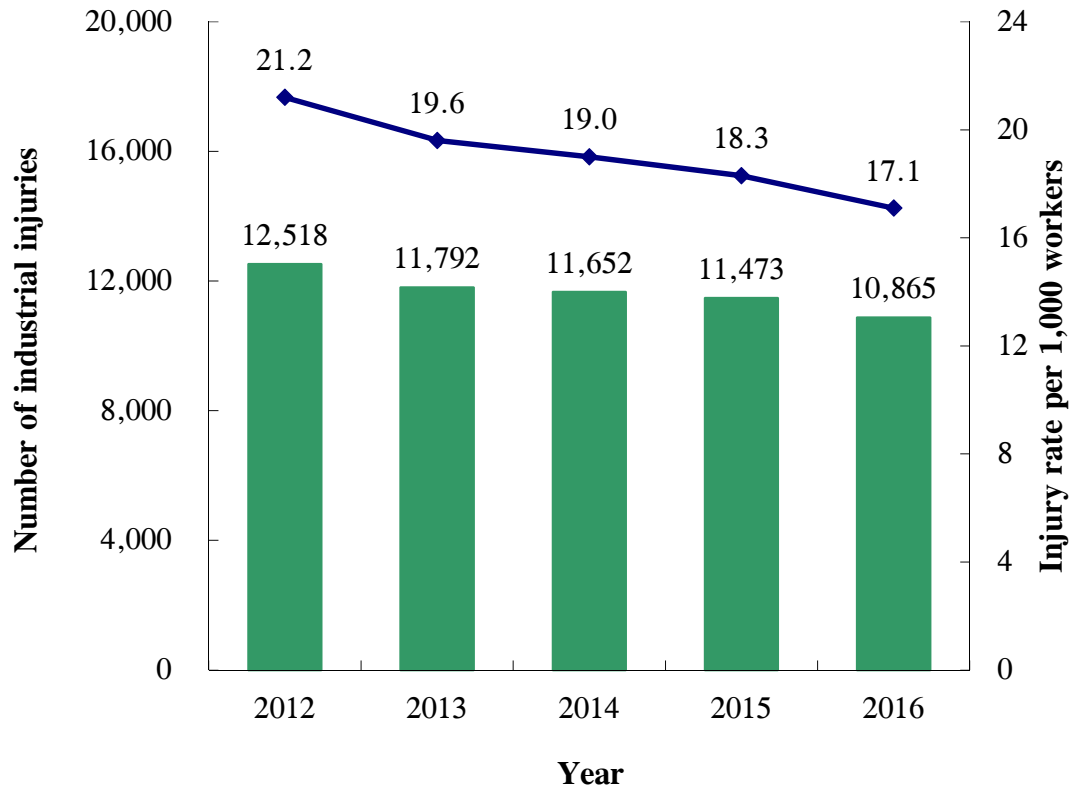


Legend: ■ Number of occupational injuries (excluding fatalities)  
◆ Injury rate per 1,000 employees

Source: LD records

Figure 2

**Industrial injuries (excluding fatalities)  
(2012 to 2016)**

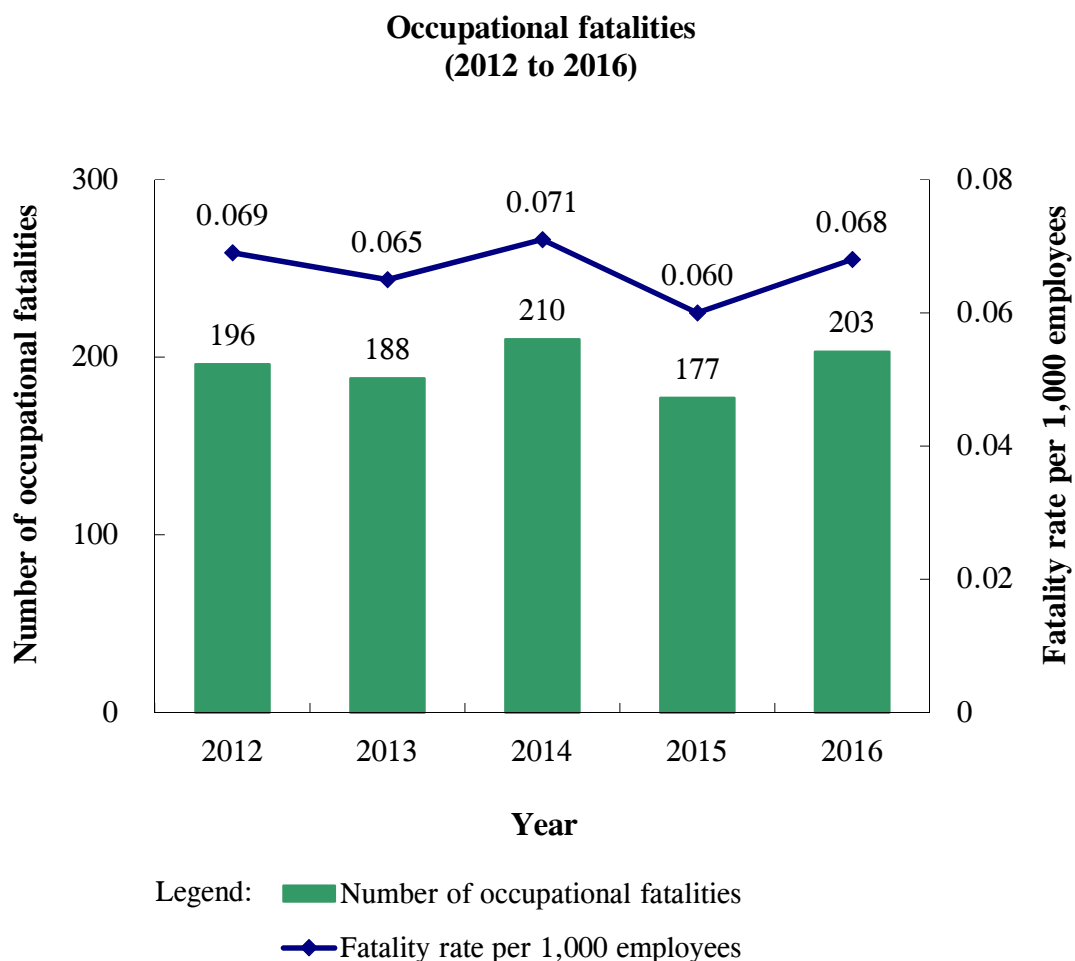


Legend: ■ Number of industrial injuries (excluding fatalities)  
◆ Injury rate per 1,000 workers

Source: LD records

1.5 Figure 3 shows the statistics on occupational fatalities for the period from 2012 to 2016. The statistics refer to the numbers of occupational fatalities reported under the ECO. The number of occupational fatalities includes industrial fatalities, which refer to fatalities arising from industrial activities in industrial undertakings as defined under the FIUO. Other occupational fatalities are cases including non-industrial fatalities, natural deaths, cases outside Hong Kong, and cases that happened on vessel. Figure 4 shows the statistics on industrial fatalities for the same period. As shown in Figures 3 and 4, the number of occupational fatalities slightly increased by 3.6% from 196 in 2012 to 203 in 2016 whereas the number of industrial fatalities decreased by 37.9% from 29 in 2012 to 18 in 2016. Figure 5 shows the statistics for the same period on 52 types of occupational diseases as prescribed under the ECO, the Occupational Deafness (Compensation) Ordinance (Cap. 469) and the Pneumoconiosis and Mesothelioma (Compensation) Ordinance (Cap. 360) (see Appendix A).

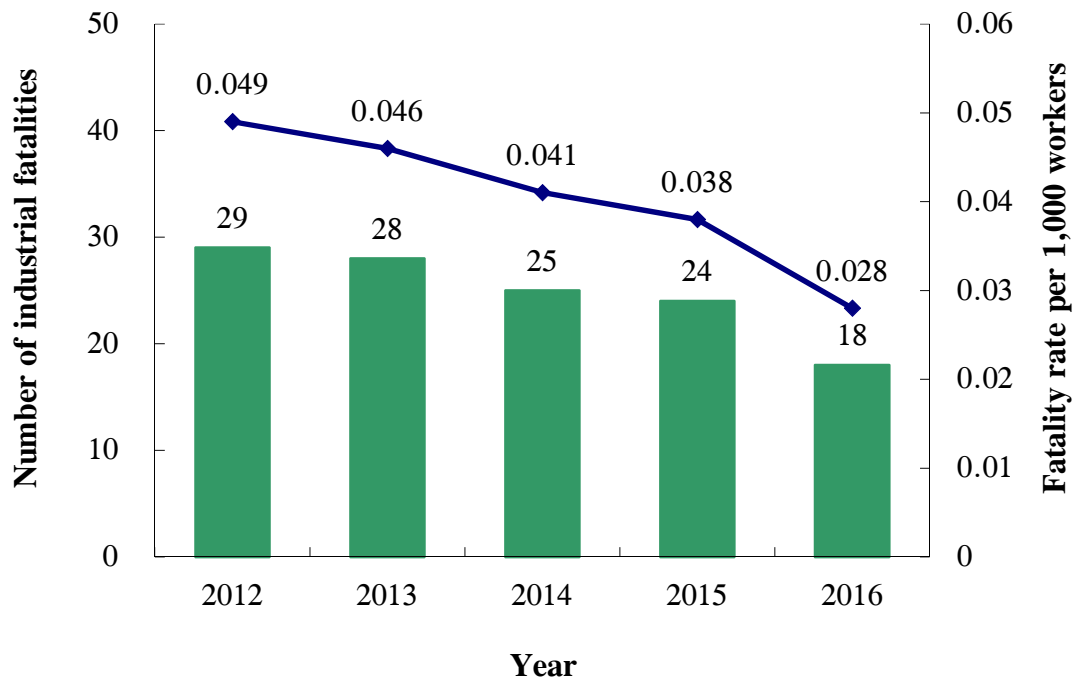
Figure 3



Source: LD records

Figure 4

**Industrial fatalities  
(2012 to 2016)**



Legend: ■ Number of industrial fatalities  
◆ Fatality rate per 1,000 workers

Source: LD records

Figure 5

**Occupational diseases  
(2012 to 2016)**



*Source: LD records*

*Remarks: The statistics refer to the number of confirmed cases of occupational diseases under the ECO, the Occupational Deafness (Compensation) Ordinance and the Pneumoconiosis and Mesothelioma (Compensation) Ordinance (see Appendix A).*

### ***Work of the LD on occupational safety and health***

1.6 The Occupational Safety and Health Branch (OSHB) of the LD is responsible for work related to occupational safety and health. It is headed by a Deputy Commissioner for Labour. As at 31 March 2017, the OSHB had a staff establishment of 642. The organisation chart of the OSHB is shown at Appendix B. The OSHB is responsible for two types of work:

- (a) ***Occupational safety.*** The major work relating to occupational safety includes:
  - (i) enforcing the OSHO, the FIUO and their subsidiary regulations through carrying out inspections of workplaces to ensure the compliance of the occupational safety requirements under the legislation;

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- (ii) carrying out accident investigations and giving advice to employers, employees and other stakeholders on measures to minimise workplace safety hazards;
  - (iii) offering advice to owners in the planning and layout of factories and workplaces, and in-plant or in-house safety programmes;
  - (iv) providing support services to instil safety concepts to the public at large with a view to inculcating a safety culture among employers, employees and other stakeholders, and to securing their commitment to self-regulation to bring in a safety management approach; and
  - (v) operating the Occupational Safety and Health Training Centre which provides training on occupational safety and health for employees in public and private sectors, gives recognition to mandatory safety training courses, and processes registration of Safety Officers, Safety Auditors and Safety Auditor Training Scheme Operators; and
- (b) ***Occupational health.*** The work relating to occupational health includes:
- (i) providing advisory services to the public on health and hygiene aspects of occupational health problems such as prevention of occupational diseases in workplaces;
  - (ii) conducting field surveys to ensure that the requirements of health and hygiene at workplaces are complied with;
  - (iii) enforcing legislation relating to occupational health and hygiene;
  - (iv) investigating and providing treatment to suspected occupational disease cases; and
  - (v) others (e.g. conducting sick leave clearance interview of employees with compensation claims, organising exhibitions and delivering talks).

1.7 Table 1 shows the performance indicators of the LD's work on occupational safety and health and the related performance reported by the LD in the Controlling Officer's Report (COR) for the period from 2012 to 2016.

**Table 1**  
**Performance on occupational safety and health**  
**(2012 to 2016)**

Major performance indicator	2012	2013	2014	2015	2016	Change between 2012 and 2016 (percentage)
<i>Occupational safety</i>						
Inspections	128,821	123,115	124,907	130,173	131,339	+2,518 (+2.0%)
Investigations of accidents at workplaces	13,442	13,266	14,758	15,046	14,730	+1,288 (+9.6%)
Promotional visits to workplaces	5,373	5,901	5,837	5,994	5,436	+63 (+1.2%)
Talks, lectures and seminars	2,023	1,944	2,047	2,106	2,097	+74 (+3.7%)
<i>Occupational health</i>						
Investigations/ surveys/ examinations/ assessments/ clinical consultations	26,437	25,286	22,164	21,592	22,629	-3,808 (-14.4%)

*Source: Audit analysis of LD records*

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### **Audit review**

1.8 In March 2005, the Audit Commission (Audit) completed an audit review of the LD's work in work safety at construction sites. The results were reported in Chapter 8 of the Director of Audit's Report No. 44 of March 2005.

1.9 In March 2017, Audit commenced a review of the LD's work in occupational safety and health. The audit has focused on the following areas:

- (a) occupational safety: inspection and enforcement (PART 2);
- (b) occupational safety: training (PART 3); and
- (c) occupational health (PART 4).

Audit has found room for improvement in the above areas and has made a number of recommendations to address the issues.

### **General response from the Government**

1.10 The Commissioner for Labour agrees with the audit recommendations. He finds the Audit Report constructive and thanks Audit for its advice.

### **Acknowledgement**

1.11 Audit would like to acknowledge with gratitude the full cooperation of the staff of the LD during the course of the audit review.



## **PART 2: OCCUPATIONAL SAFETY: INSPECTION AND ENFORCEMENT**

2.1 This PART examines the LD's inspection and enforcement effort to improve occupational safety. Audit has found that there is scope for improvement in the following areas:

- (a) identification of workplaces for inspection (paras. 2.3 to 2.12);
- (b) inspection work (paras. 2.13 to 2.27); and
- (c) enforcement action (paras. 2.28 to 2.33).

### ***Background***

2.2 The Operations Division of the OSHB is responsible for carrying out inspections of workplaces and initiating enforcement action where necessary. As at 31 March 2017, the Operations Division had a staff establishment of 351 and a staff strength of 314. The Division comprises:

- (a) ***Operational Regions.*** There are four Operational Regions, namely Hong Kong and Islands, Kowloon, New Territories East, and New Territories West. They are responsible for carrying out inspections of workplaces within their geographical boundaries. Each Region is sub-divided into two streams, one for the building and engineering construction (BEC) workplaces (i.e. construction sites), and the other for non-BEC workplaces (i.e. workplaces other than construction sites). In the four Regions, there are a total of 22 BEC offices and 20 non-BEC offices; and
- (b) ***Integrated Services Group (ISG).*** The ISG consists of 11 Offices/Teams:
  - (i) three Mega Infrastructure Project (MIP) Offices responsible for overseeing the safety of construction work of MIPs such as the Hong Kong-Zhuhai-Macao Bridge project and the Shatin to Central Link project;

## **Occupational safety: inspection and enforcement**

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- (ii) three Airport and Railways Offices responsible for overseeing the safety of all workplaces in relation to the airport and railway construction and operation (including properties managed by the railway operator);
- (iii) four Integrated Services Teams responsible for carrying out inspections of large chain establishments (such as supermarkets) by adopting a multi-disciplinary approach (i.e. tackling problems relating to both occupational safety and occupational health); and
- (iv) one temporary Surveillance Team responsible for overseeing the high pressure compressed air work associated with the Hong Kong-Zhuhai-Macao Bridge project.

## **Identification of workplaces for inspection**

### ***Inspection strategy***

2.3 There are two types of workplaces, namely BEC workplaces and non-BEC workplaces (see para. 2.2(a)). As at September 2017, information on 177,898 workplaces was kept in the OSHB's database. These workplaces comprise 36,692 BEC workplaces and 141,206 non-BEC workplaces. The LD adopts a risk-based inspection strategy as follows:

- (a) focus of inspection work is placed on:
  - (i) BEC workplaces; and
  - (ii) non-BEC workplaces which are subject to statutory workplace notification requirement (see para. 2.4(b)); and
- (b) inspection priorities are also given to workplaces of 23 hazardous non-BEC trades (see Appendix C and para. 2.9). The list of 23 hazardous trades was drawn up according to the assessment of the prevailing risks.

***Statutory workplace notification requirements***

2.4 The FIUO and its subsidiary regulations stipulate requirements for the proprietors and contractors of some workplaces to give the LD notifications of their workplaces. The requirements are:

- (a) ***BEC workplaces.*** According to the Construction Sites (Safety) Regulations (Cap. 59I), a contractor undertaking construction work shall furnish the Commissioner for Labour with information (Note 1) on the construction work within seven days after commencement of the work. A contractor is not required to give notification of the work he undertakes if:
  - (i) he has reasonable grounds for believing that the work will be completed in a period of less than six weeks; or
  - (ii) not more than ten workmen are or will be employed on the work at any one time; and
  
- (b) ***Non-BEC workplaces.*** According to the FIUO, the person (i.e. the proprietor) having the management or control of a Notifiable Workplace shall give the Commissioner for Labour notification of the workplace before commencement of operation. Notifiable Workplace means:
  - (i) any factory, mine or quarry; and

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**Note 1:** *Information that should be furnished includes: (a) the contractor's name and address; (b) the name and address of every subcontractor employed on the work; (c) the location of the construction site; (d) the nature of the work; (e) the date upon which the work was commenced; (f) whether any mechanical power is being or will be used in connection with the work and its nature; and (g) the expected duration of the work.*

## Occupational safety: inspection and enforcement

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- (ii) any premises or place in which a Dangerous Trade (Note 2) or Scheduled Trade (Note 3) is carried on or is proposed to be carried on.

A proprietor or contractor who fails to comply with the requirements is liable to a maximum fine of \$10,000.

### *Need to strengthen enforcement of notification requirement for Notifiable Workplaces*

2.5 A proprietor who fails to give the notification under the FIUO not only commits an offence and may be prosecuted, but may also deprive himself of an opportunity of being advised by the LD to improve the safety and health conditions of his workplace in the early stage of operation. In order to ascertain if effective action had been taken by the LD to ensure compliance with the notification requirement, Audit examined the LD's investigations of 20 accident cases that occurred in 2016 at Notifiable Workplaces. Audit found that the proprietors of eight (40%) Notifiable Workplaces had not submitted the required statutory notifications to the LD before the LD's investigation. According to the FIUO, the notifications should be submitted before commencement of operation. These eight Workplaces had commenced operation for 90 days to 18 years and 5 months prior to the LD's investigations (see Table 2). Audit checked the records of the LD for the period from January 2012 to July 2017 and noted that no prosecution had been taken by the LD against non-compliance of the notification requirement. Audit considers that the LD needs to step up measures to strengthen the enforcement of the notification requirement for Notifiable Workplaces.

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**Note 2:** *Examples of Dangerous Trade defined under the FIUO include: (a) boiler chipping; (b) vermillion manufacture; (c) chromium plating; and (d) the manufacture of hydrochloric, nitric or sulphuric acids.*

**Note 3:** *Examples of Scheduled Trade defined under the FIUO include: (a) any industrial undertaking involving the use of any dangerous goods specified in Category 5 in the Schedule to the Dangerous Goods (Application and Exemption) Regulations (Cap. 295A) and for which a licence is required under the Dangerous Goods Ordinance (Cap. 295); and (b) any industrial undertaking involving the use of any X-ray or radioactive substance.*

**Table 2**

**Time lapse between operation commencement date  
and LD's investigation date**

<b>Time lapse</b>	<b>Number of workplaces</b>
90 days to 1 year	2 (25%)
> 1 year to 2 years	1 (12.5%)
> 2 years to 3 years	3 (37.5%)
> 3 years	2 (25%) (Note)
Total	8 (100%)

*Source: Audit analysis of LD records*

*Note: The time lapses between the operation commencement date of the workplace and the LD's investigation date of these two cases were 6 years and 4 months, and 18 years and 5 months respectively.*

***Need to review notification requirement for BEC workplaces and non-BEC workplaces***

2.6 Although workplaces may be identified by the LD's action (e.g. enforcement campaigns), it is important for the contractors or proprietors to give the LD notifications of their BEC workplaces or non-BEC workplaces so that these workplaces are subject to the LD's inspection and advice. Audit reviewed the notification requirement for BEC workplaces and non-BEC workplaces and identified areas for improvement, as detailed in paragraphs 2.7 to 2.8.

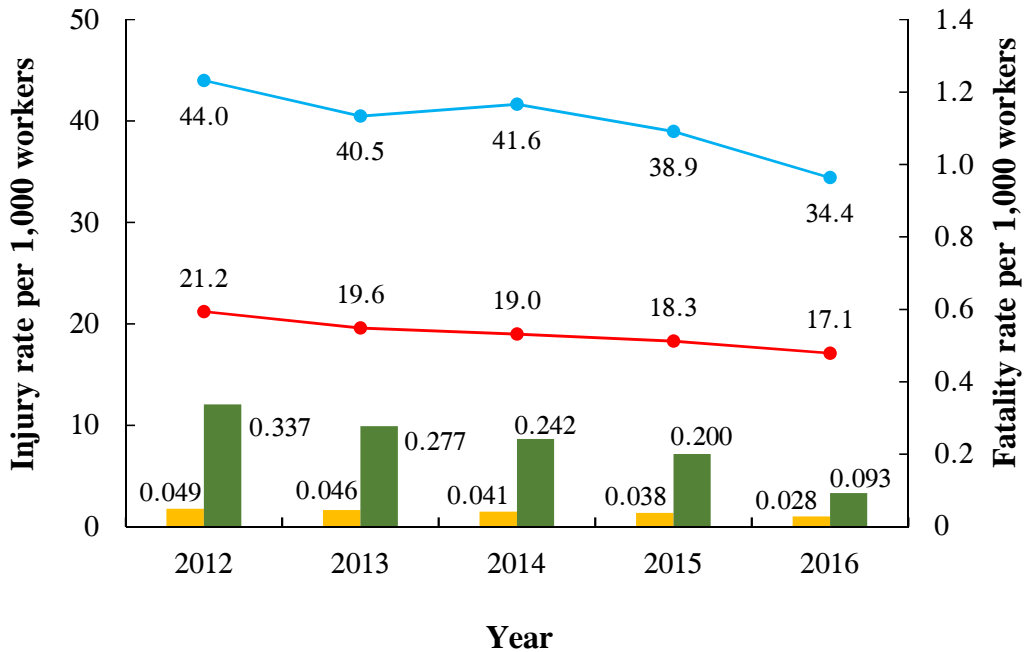
## **Occupational safety: inspection and enforcement**

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2.7 *Notification by small BEC workplaces exempted.* A contractor of a BEC workplace is not required to give notification of the work he undertakes if he has reasonable grounds for believing that the work will be completed in a period of less than six weeks or not more than ten workmen are or will be employed on the work at any one time (see para. 2.4(a)). In the period from 2012 to 2016, although the fatality rates and the injury rates (excluding fatalities) per thousand workers of the construction industry decreased from 0.337 to 0.093 and 44.0 to 34.4 respectively (see Figure 6), the number of fatal industrial accidents and the industrial accident rate per thousand workers of the construction industry had been the highest among all trades. In view of the accident-prone nature of the construction industry, there is merit for the LD to consider reviewing the need to tighten the exemption criteria.

Figure 6

Fatality rate and injury rate of construction industry (2012 to 2016)



- Legend:
- Industrial fatality rate per 1,000 workers of all trades
  - Industrial fatality rate per 1,000 workers of construction industry
  - Industrial injury rate (excluding fatalities) per 1,000 workers of all trades
  - Industrial injury rate (excluding fatalities) per 1,000 workers of construction industry

Source: Audit analysis of LD records

2.8 *Seven-day submission deadline for notification of construction work.*

According to the FIUO, notification of Notifiable Workplaces should be given to the Commissioner for Labour before the commencement of operation. However, according to the Construction Sites (Safety) Regulations made under the FIUO, notification of construction work is only required to be submitted within seven days after commencement of the work. The current notification requirement leaves a time gap between the commencement of work and the submission of notification to the LD. Given that the construction industry is accident-prone, the LD needs to review the reasonableness of the submission deadline for notification of construction work.

### *Need to review the list of hazardous trades*

2.9 The last review of the list of hazardous trades was conducted by the LD in the period from August 2011 to January 2013. According to the results of the review, 23 trades were identified as hazardous trades (see Appendix C) taking into account:

- (a) the then prevailing accident profiles, technological advancement and socio-economic development; and
- (b) the probability and consequence of accidents in the trades. Trades that were more prone to accidents were included in the list.

The review suggested targetting the workplaces of the 23 trades for proactive monitoring. The review also recommended that similar review should be conducted at a three-year interval to cope with future changes.

2.10 Audit noted that the LD had not commenced a new round of review of hazardous trades until July 2017, more than four years after the completion of the last review. Basing on the experience of the last review, the LD may take about one and a half years to complete the review. Audit considers that the LD needs to complete the review of the list of hazardous trades as soon as practicable and take measures to ensure that such review is conducted regularly in future.

### **Audit recommendations**

2.11 **Audit has *recommended* that the Commissioner for Labour should:**

- (a) **step up measures to strengthen the enforcement of the notification requirement for Notifiable Workplaces;**
- (b) **consider reviewing the need to tighten the exemption criteria of the notification requirement for BEC workplaces with work that will be completed in a period of less than six weeks or not more than ten workmen are or will be employed on the work at any one time;**



- (c) **review the reasonableness of the submission deadline for notification of construction work and if necessary, tighten the deadline;**
- (d) **closely monitor the progress of the review of the list of hazardous trades to ensure that it is completed in a timely manner; and**
- (e) **take measures to ensure that the list of hazardous trades is reviewed regularly in future.**

### **Response from the Government**

2.12 The Commissioner for Labour agrees with the audit recommendations. He has said that:

- (a) the workplace notification mechanism is complemented by other risk identification approaches in guiding the LD's inspection and enforcement actions. For instance, the LD monitors prevailing risks and conducts enforcement campaigns accordingly targeting at particular trades and particular occupational risks. Through area patrol and various referral schemes under which organisations (e.g. the Housing Authority) inform the LD of construction works carried out at the premises under their management, the LD is able to identify small BEC workplaces which potentially carry higher risks. The LD will review the notification mechanism to expand its coverage to more BEC workplaces; and
- (b) the list of hazardous trades serves as a general reference for the LD to set its work priorities. In addition to the list, the LD also makes reference to the prevailing occupational risks and accident statistics in setting its work priorities. The LD will complete the current review of the list as soon as possible and will take the opportunity to rename the list to better reflect its purpose.

### Inspection work

#### *Frequency of inspection*

2.13 ***BEC workplaces.*** It was stipulated in the LD's Standing Order that as far as practicable, each construction site (i.e. BEC workplace) should be inspected approximately once every one to three months. Where such a frequency of inspections cannot be maintained, priority should be given to the sites that are more risk-prone (e.g. sites where many workers are often engaged in higher-risk work processes such as work at height, or sites where the contractors have not responded to advice given by the LD previously). Following the principle of the Standing Order, the OSHB sets out the inspection frequency as follows:

- (a) ***Active sites.*** These are sites where works are in progress. They should be inspected at intervals of one to three months; and
- (b) ***Inactive sites.*** These are sites where works are only carried out intermittently (e.g. landscape works) or sites under defects liability period, where further works may have to be carried out. Inactive sites should be inspected at intervals of six to twelve months.

After an inspection was conducted, the Divisional Occupational Safety Officer (DSO) determines the date of the next inspection.

2.14 ***Non-BEC workplaces.*** It was stipulated in the LD's Standing Order that the priority of inspection work is determined according to its nature and urgency. Inspections are divided into two categories:

- (a) ***Inspections of priority cases.*** These are cases that shall be dealt with as soon as possible. Examples of inspections of priority cases are inspections in relation to accident/complaint investigations and follow-up of legal notices. Subsequent to the inspection, the DSO may consider a follow-up inspection necessary and determine the next inspection date (e.g. the inspecting officer could not gain access to the workplace); and
- (b) ***Rated inspections.*** These are cases that are subject to regular inspections. Regular inspections will only be made to workplaces under the hazardous trades. A point rating system is used to determine the inspection frequency of individual workplaces, ranging from once every 6 to 54 months. Each

## Occupational safety: inspection and enforcement

workplace is assessed in accordance with a set of 11 elements (e.g. the size of premises and the number of employees) and points will be assigned to each of the 11 elements. Workplaces with higher points will be inspected more frequently.

### *Backlog in bringing up files for inspections*

2.15 The LD has a bring-up system for workplace files to be brought up for inspections. When a workplace file is brought up to the attention of the DSO on the scheduled bring-up date, the DSO will assign the file to the inspecting officers for carrying out inspection. If a workplace file is not brought up to the attention of the DSO on the scheduled bring-up date and not assigned to the inspecting officers, the LD will count it as a backlog. The DSO reports the file backlog situation to the LD Headquarters through the submission of Monthly Progress Reports (MPRs). Table 3 shows the backlog situation at 20 Offices on 31 March 2016 and 31 March 2017. These 20 offices comprised all the 3 MIP Offices of the ISG (see para. 2.2(b)(i)), all the 6 BEC Offices of Hong Kong and Islands Region, all the 5 non-BEC Offices of Kowloon Region and all the 6 non-BEC Offices of New Territories West Region (see para. 2.2(a)).

**Table 3**

**Backlog in bringing up inspections at 20 Offices  
(31 March 2016 and 31 March 2017)**

Stream	Office	Type of inspection	Number of backlog files		Change (percentage)
			31 March 2016	31 March 2017	
BEC	3 MIP Offices of ISG and 6 BEC Offices of Hong Kong and Islands Region	Active site inspection	0	24	+24 (N/A)
		Inactive site inspection	5,338	6,074	+736 (+14%)
Non-BEC	5 non-BEC Offices of Kowloon Region and 6 non-BEC Offices of New Territories West Region	Follow-up inspection of priority case	0	0	—
		Rated inspection	20,078	23,414	+3,336 (+17%)

*Source: Audit analysis of LD records*

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### *Need to monitor time lapse between bring-up date and inspection date*

2.16 Audit noted that the LD only monitors the backlog in bringing up the workplace files but not whether inspections are carried out according to schedule. Audit examined 80 inspections conducted by the LD in the period from 1 April 2016 to 31 March 2017 comprising 20 active site inspections, 20 inactive site inspections, 20 follow-up inspections of priority cases and 20 rated inspections conducted by these Offices. Audit found that 24 (30%) of 80 inspections were conducted more than 90 days after the workplace files were brought up (see Table 4). On average, the inspections were conducted 82 days after the bring-up date (see Table 5). According to the MPRs of the 20 Offices, 8 of the 9 BEC/MIP Offices reported no backlog of bringing up active site inspections (Note 4) and all the 11 non-BEC Offices reported no backlog of bringing up follow-up inspections of priority cases in the period from 1 April 2016 to 31 March 2017. In Audit's view, apart from monitoring whether the workplace files are brought up on time, it is more important for the LD to develop a computer system to monitor whether there are delays in carrying out the inspections.

**Table 4**  
**Time lapse between bring-up date**  
**and inspection date**  
**(1 April 2016 to 31 March 2017)**

Time lapse (days)	Number of inspections (percentage)				
	Active site inspection	Inactive site inspection	Follow-up inspection of priority case	Rated inspection	Total
0 to 14 days	4 (20%)	12 (60%)	3 (15%)	6 (30%)	25 (31%)
15 to 30 days	4 (20%)	2 (10%)	0 (0%)	1 (5%)	7 (9%)
31 to 60 days	6 (30%)	1 (5%)	5 (25%)	3 (15%)	15 (19%)
61 to 90 days	3 (15%)	4 (20%)	1 (5%)	1 (5%)	9 (11%)
91 to 180 days	2 (10%)	1 (5%)	6 (30%)	1 (5%)	10 (13%)
181 to 260 days	1 (5%)	0 (0%)	5 (25%)	2 (10%)	8 (10%)
261 to 455 days	0 (0%)	0 (0%)	0 (0%)	6 (30%)	6 (7%)
Total	20 (100%)	20 (100%)	20 (100%)	20 (100%)	80 (100%)

} 24 (30%)

Source: Audit analysis of LD records

**Note 4:** One MIP Office reported backlogs in February and March 2017.

**Table 5**

**Average time lapse between bring-up date  
and inspection date for 80 inspections  
(1 April 2016 to 31 March 2017)**

<b>Type of inspections</b>	<b>Number of inspections</b>	<b>Average time lapse (days)</b>
Active site inspection	20	54
Inactive site inspection	20	30
Follow-up inspection of priority case	20	107
Rated inspection	20	137
Overall	80	82

*Source: Audit analysis of LD records*

***Need to clear the backlog  
in bringing up workplace files for inspections***

2.17 Audit reviewed the MPRs of the 20 Offices as at 31 March 2016 and 31 March 2017 and found that:

- (a) of the 6 BEC Offices and 3 MIP Offices that are responsible for conducting inspections on inactive construction sites (i.e. sites where works are only carried out intermittently or sites under defects liability period), seven Offices had a total of 6,074 backlog files as at 31 March 2017 (see Table 6). The oldest backlog file was over six years (January 2011). As the typical duration of a defects liability period ranges from six months to one year, many of the inactive construction sites may no longer exist and the inspections on them are no longer possible. Audit considers that the LD needs to endeavour to clear the backlog as soon as possible; and

**Table 6****Backlog in bringing up inactive site inspections  
(31 March 2017)**

Office		Number of backlog files	Longest delay (no. of months)
BEC Office of Hong Kong and Islands Region	1	1,497	74
	2	1,129	62
	3	1,251	67
	4	1,230	69
	5	797	38
	6	111	31
MIP Office of ISG	1	59	2
Overall		6,074	74

*Source: Audit analysis of LD records*

- (b) of the 11 non-BEC Offices that are responsible for conducting rated inspections (see para. 2.14(b)), the number of backlog files increased by 17% from 20,078 on 31 March 2016 to 23,414 on 31 March 2017. As at 31 March 2017, the number of backlog files of individual Offices ranged from 471 to 4,445, with an average of 2,129 files (see Table 7). Audit considers that the LD needs to critically review the problem of backlog and take measures to clear the backlog as soon as possible.

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**Table 7**

**Backlog in bringing up rated inspections  
(31 March 2016 and 31 March 2017)**

Region	Non-BEC Office	Number of backlog files		Change (percentage)
		31 March 2016	31 March 2017	
Kowloon	1	4,065	4,445	+380 (+9%)
	2	1,379	1,916	+537 (+39%)
	3	2,577	2,796	+219 (+8%)
	4	2,606	2,666	+60 (+2%)
	5	1,492	1,534	+42 (+3%)
New Territories West	1	1,530	1,785	+255 (+17%)
	2	476	471	-5 (-1%)
	3	1,486	2,859	+1,373 (+92%)
	4	1,820	2,095	+275 (+15%)
	5	1,093	1,116	+23 (+2%)
	6	1,554	1,731	+177 (+11%)
Overall		20,078	23,414	+3,336 (+17%)
Average		1,825	2,129	+304 (+17%)

Source: *Audit analysis of LD records*

### *Need to improve documentation to cover all important areas of inspection work*

2.18 It was stipulated in the OSHB Orders that one of the principles underpinning field operation's approach to inspection is that inspecting officers will strive for a consistent and demonstrably fair approach, i.e. demand similar action for similar circumstances.

2.19 After conducting an inspection, the inspecting officer documents his observations arising from the inspection in a workplace file and submit the file to his DSO for review. Audit noted that apart from updating the particulars of workplaces such as details of management, premises, work process, machinery and materials used, the inspecting officer only documented in the file the irregularities identified during the inspection. The officer did not document details of inspection work carried out, such as the work processes examined and the results of such examinations. Audit considers that in the absence of detailed documentation of inspection work, it would be difficult for the DSOs to ensure that:

- (a) adequate inspection work had been carried out;
- (b) important areas were not overlooked;
- (c) due professional judgement had been exercised to determine whether a situation was irregular; and
- (d) standard of inspection had been consistently applied.

The LD needs to improve the documentation of the inspection work performed to ensure that all important areas are covered. For instance, the LD may consider designing a comprehensive checklist covering all important areas of inspection to document the inspection work. The checklist can also facilitate DSOs' review of inspecting officers' work to ensure that inspections conducted by different officers are carried out properly and consistently.



### *Need to improve the frequency and sufficiency of supervisory visit*

2.20 It was stipulated in the OSHB Guidelines that the following two types of supervisory visits should be conducted:

- (a) ***Re-inspection.*** DSOs are required to randomly re-inspect the workplaces that have been inspected by their inspecting officers to check and verify physically the reliability of the documented events and observations in the workplace files. The number of such re-inspections should not be less than 20% of the total number of supervisory visits; and
- (b) ***Joint inspection.*** DSOs are required to regularly carry out joint inspections with their inspecting officers to appraise their performance and to give them coaching.

2.21 Audit analysed the number of supervisory visits conducted by the DSOs of the 20 Offices (see para. 2.15) in the period from 1 April 2016 to 31 March 2017 (see Table 8) and found areas for improvement in the frequency and sufficiency of the supervisory visits, as follows:

- (a) ***Frequency of supervisory visits not stipulated in guidelines.*** Audit noted that the LD's guidelines only required that the number of re-inspections should not be less than 20% of the total number of supervisory visits. The guidelines did not stipulate the frequency of supervisory visits to be conducted (e.g. as a percentage of the total inspections). The number of supervisory visits conducted by the 20 Offices varied from 13 to 165 and accounted for 0.6% to 6.2% of the total number of inspections conducted. Audit considers that the LD needs to stipulate in the guidelines the frequency of supervisory visits; and
- (b) ***Insufficient re-inspections conducted.*** Audit examined the inspection records of 20 Offices. Of these 20 Offices, 12 (60%) Offices did not comply with the requirement that the number of re-inspections should not be less than 20% of the total number of supervisory visits. Among the 12 Offices, 6 Offices did not conduct re-inspections during the period. Audit considers that the LD needs to take measures to ensure that all Offices comply with the requirement on supervisory visit.

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Table 8

### Supervisory visits conducted (1 April 2016 to 31 March 2017)

Office	Number of supervisory visits			Meeting minimum requirement on re-inspection	Number of inspections (b)	Percentage of supervisory visits (c) = (a) ÷ (b) × 100%
	Re-inspection (percentage of total supervisory visits)	Joint inspection (percentage of total supervisory visits)	Total (a)			
1	0	13 (100%)	13	✘	2,317	0.6%
2	8 (25%)	24 (75%)	32	✓	2,534	1.3%
3	0	69 (100%)	69	✘	3,034	2.3%
4	5 (9%)	51 (91%)	56	✘	2,235	2.5%
5	70 (77%)	21 (23%)	91	✓	3,233	2.8%
6	4 (7%)	53 (93%)	57	✘	1,873	3.0%
7	0	60 (100%)	60	✘	1,976	3.0%
8	0	55 (100%)	55	✘	1,773	3.1%
9	57 (55%)	47 (45%)	104	✓	3,381	3.1%
10	15 (15%)	83 (85%)	98	✘	3,023	3.2%
11	9 (18%)	40 (82%)	49	✘	1,414	3.5%
12	0	78 (100%)	78	✘	2,070	3.8%
13	26 (25%)	80 (75%)	106	✓	2,366	4.5%
14	40 (24%)	125 (76%)	165	✓	3,594	4.6%
15	70 (49%)	73 (51%)	143	✓	3,012	4.7%
16	11 (9%)	112 (91%)	123	✘	2,502	4.9%
17	65 (42%)	91 (58%)	156	✓	3,093	5.0%
18	15 (13%)	104 (87%)	119	✘	2,270	5.2%
19	51 (32%)	109 (68%)	160	✓	3,008	5.3%
20	0	150 (100%)	150	✘	2,428	6.2%

Source: Audit analysis of LD records

*Need to set suitable performance targets*

2.22 The LD reported in its COR two key performance indicators in relation to the field operations conducted by the Operations Division, namely “Inspections under the FIUO and the OSHO” and “Promotional visits to workplaces under the FIUO and the OSHO”. Promotional visits are mostly conducted by the inspecting officers when they visit workplaces for inspections. Inspecting officers would normally conduct promotional visits to sizeable establishments/construction sites. Table 9 shows the targets and actual performance of field operations in the period from 2012 to 2016.

**Table 9**  
**Targets and actual performance of field operations**  
**(2012 to 2016)**

	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>Total</b>
<i>Inspections under the FIUO and the OSHO</i>						
Target	113,400	113,400	113,400	114,700	114,700	569,600
Actual	128,821	123,115	124,907	130,173	131,339	638,355
Difference	15,421 (13.6%)	9,715 (8.6%)	11,507 (10.1%)	15,473 (13.5%)	16,639 (14.5%)	68,755 (12.1%)
<i>Promotional visits to workplaces under the FIUO and the OSHO</i>						
Target	4,800	4,800	4,800	4,860	4,860	24,120
Actual	5,373	5,901	5,837	5,994	5,436	28,541
Difference	573 (11.9%)	1,101 (22.9%)	1,037 (21.6%)	1,134 (23.3%)	576 (11.9%)	4,421 (18.3%)

Source: Audit analysis of LD records

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2.23 Performance measures aim at setting specific goals, challenging an organisation to improve. As shown in Table 9, the LD had over-performed in the period from 2012 to 2016 by a significant margin. During the period, the actual performance of the indicator “Inspections under the FIUO and the OSHO” averaged 127,671 per year and exceeded the target by 8.6% to 14.5% while the performance of the indicator “Promotional visits to workplaces under the FIUO and the OSHO” averaged 5,708 per year and exceeded the target by 11.9% to 23.3%. Audit noted that the targets of the two indicators for 2017 remained at the same levels for 2016 (i.e. 114,700 inspections and 4,860 promotional visits). Audit considers that the LD needs to set performance targets at a level that is challenging and yet achievable.

### *Need to provide adequate elaboration on performance measures*

2.24 The inspections conducted by an inspecting officer are reported as his output in the MPR (see para. 2.15). Audit found that:

- (a) if an inspection is conducted jointly by more than one inspecting officer, each individual officer would separately report the inspection as his output. The LD added up their total output for reporting in the CORs. Audit analysis of the LD’s records on inspections conducted from 2012 to 2016 revealed that the numbers of workplaces inspected per year ranged from 44,756 to 73,565 (i.e. one inspection visit to one workplace was counted as one irrespective of how many inspecting officers took part in the inspection work) (see Table 10); and

**Table 10**

#### **Number of inspections to workplaces (2012 to 2016)**

<b>Year</b>	<b>Number of workplaces inspected</b>	<b>Number of inspections reported in COR</b>
2012	73,565	128,821
2013	67,010	123,115
2014	58,897	124,907
2015	61,127	130,173
2016	44,756	131,339

*Source: Audit analysis of LD records*

- (b) the numbers of inspections reported in the CORs included cases where the workplaces were locked, removed or not in operation. The LD has not kept separate statistics on the numbers of these incidents.

2.25 The LD needs to separately disclose in the COR the number of cases where the workplaces were locked, removed or not in operation, and the number of workplaces inspected.

### Audit recommendations

2.26 **Audit has *recommended* that the Commissioner for Labour should:**

- (a) **take measures to ensure that there is no delay in:**
  - (i) **bringing up cases for inspection; and**
  - (ii) **conducting inspections after the cases were brought up for inspection;**
- (b) **take measures to clear the existing backlog of inspections as soon as practicable;**
- (c) **improve the documentation of the inspection work performed;**
- (d) **stipulate in the guidelines the frequency of supervisory visits (for example, as a percentage of the total number of inspections conducted);**
- (e) **take measures to ensure that the requirements on supervisory visit are complied with;**
- (f) **set suitable performance targets for the inspections and promotional visits conducted by the Operations Division at a level that is challenging and achievable; and**

- (g) **separately disclose in the COR the number of cases where the workplaces were locked, removed or not in operation, and the number of workplaces inspected.**

### **Response from the Government**

2.27 The Commissioner for Labour agrees with the audit recommendations. He has said that:

- (a) the LD's inspection strategy is risk-based. The LD places priority on workplaces with higher risk, such as workplaces subject to the statutory notification requirements, active construction sites, priority non-BEC cases, complaint cases, and workplaces carrying prevailing occupational risks at different times. While noting that the backlog cases in bringing up for inspection are low-risk ones, the LD agrees that the backlog situation needs to be addressed in accordance with the risk-based inspection approach. The LD will refine the bring-up system to align it with the LD's risk-based inspection approach;
- (b) inspecting officers are currently required to complete various inspection records and reports after each inspection. The current system also requires the DSOs to sign off every workplace file to ensure that each inspection is conducted properly. The LD will devise a checklist to further strengthen the DSOs' monitoring work;
- (c) the LD will set performance targets for inspections and promotional visits with reference to the manpower situation and the prevailing enforcement strategy; and
- (d) conditions of workplaces can only be ascertained at the point of inspection. In cases where the original workplace is taken up by another business (i.e. removal) or the workplace is accessible although not in operation, the inspecting officer can still conduct an inspection. The LD will include the number of such inspections in the COR.

### Enforcement action

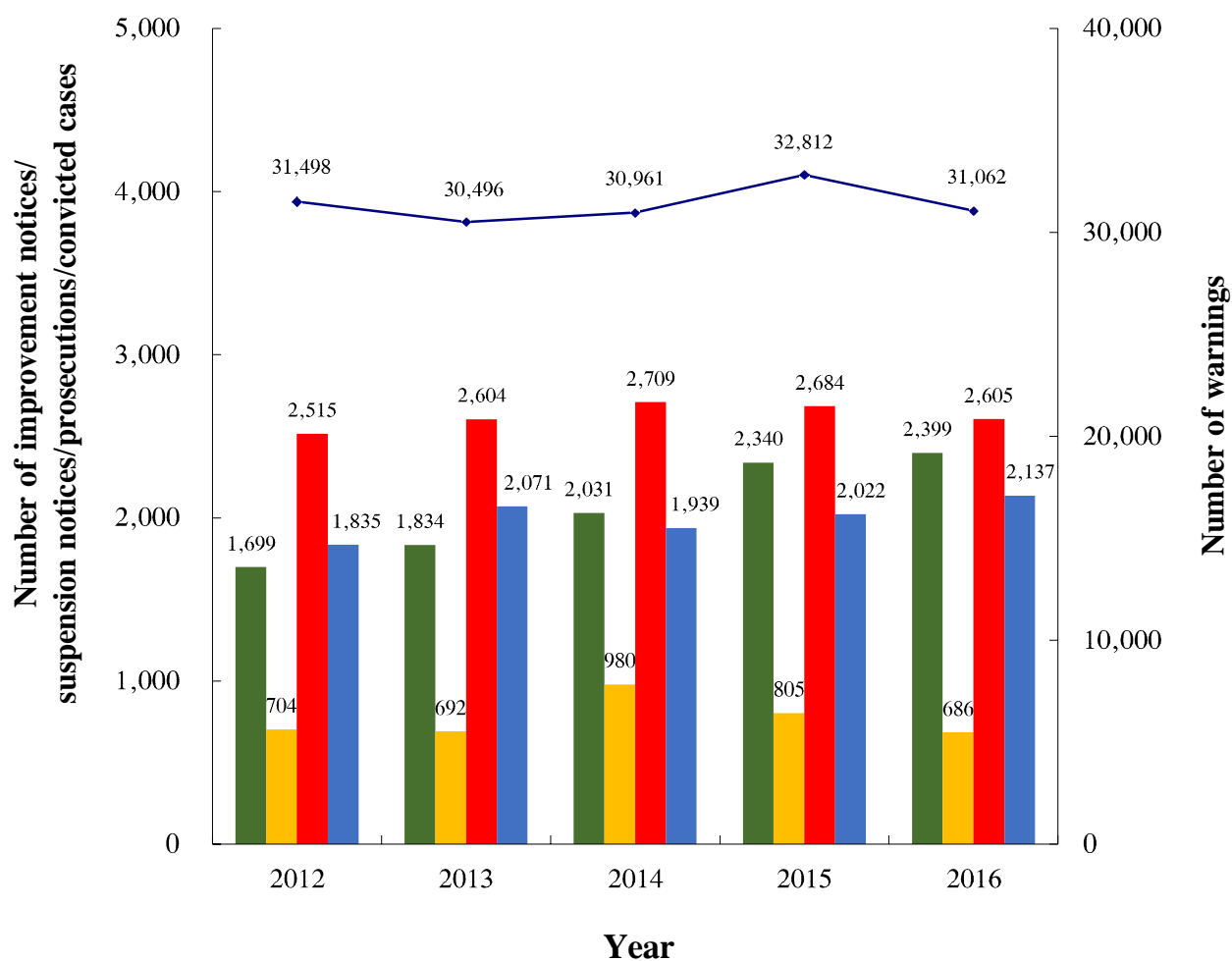
2.28 According to the LD's Standing Order, inspecting officers may take the following enforcement action against any irregularity identified during inspections:

- (a) **Warning.** This is for breaches of safety and health regulations that do not normally give rise to imminent or serious risks of bodily injury (for example, lack of first-aid equipment and persons trained in first-aid);
- (b) **Improvement notice.** This is for breaches of safety and health regulations which are related to risks less serious in nature or where some actions have been taken to reduce the risk substantially despite the fact that the relevant regulations have not been fully complied with (for example, improper use of personal protection equipment);
- (c) **Suspension notice.** This is for suspension of any hazardous work or process or the use of any dangerous equipment which may cause an imminent risk of death or serious bodily injury to workers (for example, lifting appliance being used to carry goods well in excess of its capacity); and
- (d) **Prosecution.** This is for breaches of safety and health regulations that will pose risks of serious bodily injury/ill health or considerable fire hazards.

Figure 7 shows the statistics on the enforcement action taken by the LD and cases convicted for the period from 2012 to 2016.

Figure 7

**Enforcement action on irregularities identified during inspections and cases convicted (2012 to 2016)**



- Legend:
- Improvement notices
  - Suspension notices
  - Prosecutions
  - Convicted cases
  - ◆ Warnings

Source: *Audit analysis of LD records*

Remarks: *The number of convicted cases in a year includes those cases on which prosecution began in previous years.*



### *Need to strengthen deterrent effect of occupational safety legislation*

2.29 During the period 2013 to 2015, the LD considered the issue of the deterrent effect against non-compliance with the legislation related to occupational safety. Since then, the LD:

- (a) had submitted information to the court for reference in sentencing. Such information included the serious consequences arising from the accidents in question, the upward trend of the number of accidents concerned, and the highest penalty imposed on similar cases in the past; and
- (b) depending on the circumstances of individual cases, had requested the Department of Justice (DoJ) to consider filing a review or an appeal to the court in respect of the conviction and the penalty.

2.30 Audit analysed the cases convicted under the FIUO and the OSHO in the period from 2012 to 2016 and found that the average amount of fines imposed by the court on convicted cases had increased by 47% from \$7,723 in 2012 to \$11,390 in 2016 (see Table 11). However, Audit analysis of the highest amount and the average amount of fines under the five most common offences of the FIUO and the OSHO revealed that notwithstanding the increase in amount of fines, the highest amount and the average amount were significantly below the maximum amount stipulated in the legislation (see Table 12).

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Table 11

**Average amount of fine for  
convicted cases under FIUO and OSHO  
(2012 to 2016)**

Year	Fatal cases		Non-fatal cases		All cases	
	No. of convicted cases	Average fine (\$)	No. of convicted cases	Average fine (\$)	No. of convicted cases	Average fine (\$)
2012	59	14,212	1,776	7,508	1,835	7,723
2013	56	15,959	2,015	7,821	2,071	8,041
2014	143	21,962	1,796	9,419	1,939	10,344
2015	104	19,231	1,918	10,305	2,022	10,764
2016	138	28,022	1,999	10,242	2,137	11,390

Source: *Audit analysis of LD records*

Remarks: *In addition to fines imposed by the court under the FIUO and OSHO, employers are also liable for compensation under the ECO for work injuries and fatalities as well as prescribed occupational diseases of their employees. As the ECO does not limit the civil liability of employers, when the injury or death is caused by the negligence or other wrongful acts of the employers, the employees and family members of the deceased employees may recover compensation and sue for damages as well.*

**Table 12**

**Highest amount and average amount of fine for  
five most common offences under FIUO and OSHO  
(2012 to 2016)**

Offence		Number of convicted cases	Maximum statutory fine (\$)	Highest fine imposed (\$)	Average fine (\$)
1	Failure to ensure that suitable and adequate access to and egress from the construction site is provided and properly maintained	545	200,000	80,000	11,633
2	Failure to take adequate steps to prevent any person on the construction site from falling from height (for contractor responsible for the construction site)	1,054		90,000	16,315
3	Failure to take adequate steps to prevent any person on the construction site from falling from height (for contractor who has direct control over the construction work)	922		120,000	11,211
4	Failure to maintain in good condition and free from obstruction the means of escape from the workplace in case of fire	847		70,000	9,674
5	Failure to ensure that all means of escape from the workplace are maintained in a safe condition and kept free from obstruction	577		100,000	12,642

*Source: Audit analysis of LD records*

## **Occupational safety: inspection and enforcement**

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2.31 According to the LD:

- (a) it had already implemented the measures to enhance the deterrent effect against non-compliance with the legislation related to occupational safety (see para. 2.29); and
- (b) legislative amendment would be the remaining way to increase penalty in a substantial manner.

### **Audit recommendation**

2.32 **Audit has *recommended* that the Commissioner for Labour should monitor closely the need to review the labour legislation with a view to strengthening the deterrent effect of the legislation.**

### **Response from the Government**

2.33 The Commissioner for Labour agrees with the audit recommendation.

## **PART 3: OCCUPATIONAL SAFETY: TRAINING**

3.1 This PART examines the LD's work on training on occupational safety. Audit found room for improvement in the following areas:

- (a) mandatory safety training courses (paras. 3.2 to 3.11);
- (b) Registered Safety Officers and Registered Safety Auditors (paras. 3.12 to 3.26); and
- (c) performance reporting (paras. 3.27 to 3.30).

### **Mandatory safety training courses**

3.2 According to the FIUO and its subsidiary regulations, every person engaged in specific high risk sectors, activities or machine operations is required to complete the relevant mandatory safety training (MST) course organised by a training course provider (TCP) and obtain a relevant certificate. There are six types of MST courses. In 2016, there were 146 TCPs providing 704 MST courses. These 146 TCPs issued a total of 349,056 certificates (see Table 13).

**Table 13****Number of TCPs, MST courses provided and certificates issued  
(2016)**

<b>Type of MST course</b>		<b>Number of TCPs</b>	<b>Number of MST courses provided</b>	<b>Number of certificates issued</b>
1	Confined Spaces Operation Safety Training Course	47	150	43,157
2	Crane Operator Safety Training Course	37	112	5,163
3	Gas Welding Safety Training Course	22	37	7,909
4	Loadshifting Machine Operator Safety Training Course	45	159	13,524
5	Mandatory Basic Safety Training Course	112	243	277,734
6	Person Working on Suspended Working Platform Safety Training Course	2	3	1,569
Overall		146 (Note)	704	349,056

*Source: LD records*

*Note: The numbers of TCPs do not add up because some TCPs provided more than one type of courses.*

***Monitoring of TCPs***

3.3 MST courses provided by TCPs must be recognised by the LD. To assure the quality of the MST courses, the LD promulgated the Approval Conditions setting out the requirements (e.g. course contents and qualification of trainers) for all TCPs to follow.

3.4 The LD has promulgated a set of Guidelines on monitoring the performance of TCPs. Surprise inspections are carried out on TCPs to inspect their conduct of MST courses. To maintain consistency, objectivity and fairness, the LD uses a standard inspection checklist during the inspections. The checklist contains ten aspects (Note 5). Furthermore, the LD complements its TCP inspections with regular undercover inspections which involve inspecting officers in the guise of a course participant (i.e. covert operation). When a breach of the Approval Conditions is found, enforcement action (e.g. issuing warnings or directions or withdrawal of course recognition) will be taken according to the severity of the breach. In 2016, the LD issued 17 warning letters and 5 directions.

### *Need to improve planning of inspection*

3.5 As stipulated in the LD's Guidelines, every TCP should be inspected by the LD at least once a year. The inspection interval of individual TCPs is determined by their business nature:

- (a) commercial operators providing MST courses to the public should be inspected once every three months;
- (b) organisations providing in-house training as well as trade unions and associations should be inspected once every nine months; and
- (c) professional institutions, universities and statutory training bodies should be inspected annually.

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**Note 5:** *The ten aspects are: (a) delivery of course contents; (b) course duration; (c) performance of trainers; (d) training venue and training facilities; (e) trainer to trainees ratio; (f) conduct of examination; (g) keeping of training records; (h) issuing of certificates; (i) enrolment of trainees and complaint procedures; and (j) medium of training.*

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3.6 *Many inspections conducted when there were no course sessions.* Seven of the ten aspects of the inspection checklist can only be observed during course sessions, namely:

- (a) delivery of course contents;
- (b) course duration;
- (c) performance of trainers;
- (d) training venue and training facilities;
- (e) trainer to trainees ratio;
- (f) conduct of examination; and
- (g) medium of training.

In 2016, the LD conducted 225 inspections on 146 TCPs. Audit examination of the inspection records revealed that of the 225 inspections, 182 (81%) were conducted at the time when no course session was available for observation. As a result, many aspects of the courses could not be observed. In these inspections, the LD conducted checking on the TCPs' documentation. Audit noted that it is stipulated in the Approval Conditions that a TCP should submit the course schedule, including the examination timetable, to the LD at least three working days before the commencement of the course. Audit considers that the LD needs to make good use of the information in planning its inspections to arrange as far as practicable more inspections when there is a course session.



*Review of MST courses*

3.7 In 2009, the LD conducted a review to devise improvement measures on recognition and monitoring of MST courses. The review identified a number of problems such as:

- (a) discrepancies in course contents among the same type of MST courses provided by different TCPs;
- (b) removing part of the course contents by the TCPs without obtaining prior approval from the LD; and
- (c) leakage of examination contents by the TCPs.

3.8 In April 2011, the LD proposed to the Legislative Council (LegCo) Panel on Manpower a two-phase approach to implement the improvement measures. The LD informed the Panel that:

- (a) **Phase One.** In Phase One, three improvement measures would be introduced to all MST courses:
  - (i) standardisation of course contents;
  - (ii) consolidation of the Guidance Notes, which sets out the procedures for a TCP to apply for recognition of a MST course; and
  - (iii) centralisation of issuance of examination papers by the LD; and
- (b) **Phase Two.** Subject to the effectiveness of the improvement measures implemented in Phase One, consider to implement the following improvement measures in Phase Two:
  - (i) accreditation of the TCPs' governance and quality assurance capability;
  - (ii) introduction of a validity period for recognised courses; and

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- (iii) introduction of a demerit point system for the TCPs and strengthening disciplinary action against TCPs with poor performance.

The Panel supported the LD to implement the improvement measures in Phase One and considered that the LD should continue to examine other measures with a view to enabling their early implementation in Phase Two.

3.9 In October 2011, the LD reported the progress of the implementation of improvement measures to the LegCo Panel on Manpower. The LD informed the Panel that:

- (a) the Guidance Notes of all the six types of MST courses were consolidated and came into effect in September 2011; and
- (b) with effect from September 2011, the course contents of the Mandatory Basic Safety Training Course had been standardised and its examination papers had been issued by the LD centrally.

Audit noted that up to August 2017, two of the three Phase One improvement measures, namely the standardisation of course contents and the centralisation of issuance of examination papers for the remaining five types of MST courses had not been implemented. Furthermore, there was also no timetable to implement these measures and the Phase Two measures. Audit considers that the LD needs to expedite the implementation of the improvement measures.

## Audit recommendations

3.10 **Audit has *recommended* that the Commissioner for Labour should:**

- (a) **arrange inspections on the TCPs during time period when there are course sessions taking place as far as practicable; and**
- (b) **expedite the implementation of the improvement measures recommended by the 2009 review on MST courses.**

## Response from the Government

3.11 The Commissioner for Labour agrees with the audit recommendations. He has said that:

- (a) of the 182 TCP inspections conducted when there were no course sessions, 95 were not only typical inspections but also follow-up on warning/withdrawal cases and complaint investigations. Covert operations are proven to be an effective approach to monitor the effectiveness of MST courses. The LD will review its relevant guidelines with a view to arranging more during-class inspections in conjunction with other surprise inspections and covert operations to achieve the optimal impact; and
- (b) the LD has been focusing its efforts in refining the course content and the Approval Conditions of the Mandatory Basic Safety Training Course, which is required to be taken by all construction workers. The LD will draw up a timetable to guide implementation of the improvement measures on MST courses.

## Registered Safety Officers and Registered Safety Auditors

3.12 Under the FIUO, proprietors of industrial undertakings have a general duty to ensure the safety and health conditions of their employees. To further promote occupational safety, the subsidiary regulations set out the following requirements for those more risk-prone industries:

- (a) **Registered Safety Officers (RSOs).** It was stipulated in the Factories and Industrial Undertakings (Safety Officers and Safety Supervisors) (FIU (SOSS)) Regulations (Cap. 59Z) that a proprietor of a construction site who is a principal contractor shall employ an RSO on a full time basis when the total number of persons employed on his construction site or sites is 100 or more. The same requirement applies to a proprietor of a shipyard or a container handling workplace if the proprietor employs 100 or more persons in one or more of his shipyards or container handling workplaces. The duties of an RSO are to assist the proprietor of an industrial undertaking in promoting the safety and health of employees, for example:

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- (i) inspecting the workplace to identify potential hazards and reporting the findings with recommendations for correction to the proprietor; and
  - (ii) investigating accidents and dangerous occurrences, and reporting with recommendations for prevention to the proprietor; and
- (b) **Registered Safety Auditors (RSAs).** It was stipulated in the Factories and Industrial Undertakings (Safety Management) (FIU (SM)) Regulation (Cap. 59AF) that a contractor of a single or multiple construction sites having 100 or more workers, or having a construction project with a contract value of \$100 million or more, shall implement a safety management system (Note 6) and appoint an RSA to conduct safety audits on the system at specified regular intervals. The same requirement applies to a proprietor of a single or multiple factories, shipyard business and designated industrial undertaking (i.e. those involved in the generation, transformation and transmission of electricity, town gas or liquefied petroleum gas and in the handling of containers) with 100 or more workers.

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**Note 6:** *The safety management system contains 14 elements. Examples of the elements are: (a) a safety policy which states the commitment of the proprietor or contractor to safety and health at work; and (b) a programme of inspection to identify hazardous conditions and for the rectification of any such conditions at regular intervals or as appropriate.*

3.13 Table 14 shows the numbers of RSOs and RSAs as at the year end of 2012 to 2016.

**Table 14**  
**Number of RSOs and RSAs**  
**(2012 to 2016)**

Year (as at 31 December)	RSO	RSA
2012	2,546	1,094
2013	2,846	1,137
2014	2,977	1,179
2015	3,260	1,225
2016	3,607	1,261

*Source: LD records*

### ***Eligibility of RSOs and RSAs***

3.14 The LD is responsible for the registration of Safety Officers and Safety Auditors. The eligibility criteria of RSOs and RSAs are set out as follows:

- (a) ***RSOs***. To register as an RSO, a person shall possess one of the specified academic qualifications and other specified requirements (e.g. relevant experience of not less than one year); and
- (b) ***RSAs***. To register as an RSA, a person shall be an RSO and fulfil the specified requirements (e.g. having successfully completed a scheme conducted by a registered Scheme Operator).

### ***Some RSAs are not RSOs***

3.15 Prior to June 2002, the designation of an RSO was valid for life. The FIU (SOSS) Regulations were amended in 2002. The amendments provide that the registration of RSOs shall be valid for a period of four years subject to renewal or revalidation. An application for renewal or revalidation of registration shall only be

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approved by the Commissioner for Labour if he is satisfied that the applicant has completed a total of not less than 100 hours of Continuing Professional Development Programmes in occupational safety and health in the four years immediately preceding the application.

3.16 One of the qualifications for registration as an RSA is that the person shall be an RSO. Under the renewal/revalidation requirement for the RSOs, there is a possibility that some RSAs who cease to be RSOs after they have become RSAs. This is because some RSAs, who at the time of registration were RSOs, may choose not to apply for renewal or revalidation after the expiry of the four-year period. In September 2000, the LD consulted the DoJ whether the status of these RSAs would be affected. According to the legal opinion:

- (a) there was no express provision in the FIU (SM) Regulation which nullified the validity of the registration of an RSA when he ceased to be an RSO. It might however be argued that the requirement of being an RSO was a necessary condition for being an RSA; and
- (b) there was no clear authority on the question as to whether the validity of the designation of an RSA would be affected if he was no longer an RSO.

3.17 In response to Audit enquiry, the DoJ advised in October 2017 that:

- (a) according to the FIU (SM) Regulation, where the Commissioner for Labour has ceased to be satisfied that an RSA is competent to be so registered or fit and proper to be so registered, he may refer the matter for hearing by a disciplinary board. After concluding its hearing, the disciplinary board may exonerate the registered person concerned or may do one or more of the following:
  - (i) reprimand the registered person;
  - (ii) cancel the registration of the registered person; and
  - (iii) suspend the registered person's registration for a specified period of time; and

- (b) it appeared that although the Regulation did not expressly enable the Commissioner for Labour to cancel the registration of an RSA if he was no longer an RSO, the Regulation may be resorted to which may result in cancellation of registration of an RSA if the disciplinary board considered it appropriate to do so.

3.18 It was the LD's policy intention that RSAs should also be RSOs. Audit compared the lists of RSOs and RSAs as at 31 May 2017 and noted that 29 (2.3%) of a total number of 1,273 RSAs were not on the RSO list. Unlike RSO, the designation of an RSA is valid for life and an RSA is not required to receive continuous training to ensure that he possesses up-to-date knowledge in promoting safety and health in a workplace. The LD needs to review whether there is a need to revise the FIU (SM) Regulation and, where necessary, consider initiating action to revise the Regulation.

### ***Safety Auditor Training Scheme Operators***

3.19 To register as an RSA, one of the specified requirements is that a person shall have successfully completed a scheme conducted by a registered Scheme Operator recognised by the LD (see para. 3.14(b)). The LD has promulgated the Guidance Notes for Registration as a Safety Auditor Training Scheme Operator setting out the criteria and procedures for registration as a Scheme Operator. The LD publishes a list of registered Scheme Operators on its website. As at 30 June 2017, there were 15 registered Scheme Operators.

3.20 According to the Guidance Notes for Registration as a Safety Auditor Training Scheme Operator, Scheme Operators should collect feedback or evaluation of the training schemes from the students and submit a summary with the Scheme Operator's comments to the LD for reference. The Guidance Notes also state that the LD may inspect the conduct of schemes. As stipulated in the LD's Guidelines, the LD should:

- (a) conduct at least one monitoring visit for each round of intake and complete a standard checklist;

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- (b) issue a copy of the completed checklist to Scheme Operators within seven working days after the monitoring visits; and
- (c) conduct at least two independent follow-up inspections to two Scheme Operators selected at random within a year.

3.21 *Need to improve monitoring of Scheme Operators.* In 2016, there were four Scheme Operators who conducted training schemes with a total of seven rounds of intakes. The LD conducted one monitoring visit to each of the seven rounds of intakes. Audit found the following areas for improvement:

- (a) although none of the four Scheme Operators had submitted the summary of students' feedback, the LD did not follow up with the Operators;
- (b) during monitoring visits, the visiting officer should inspect seven aspects according to the checklist (Note 7). However, in all the seven visits only four aspects were inspected. The “examination session”, “issuing of certificates” and “security steps” aspects had not been checked;
- (c) the LD only issued the completed checklists to three Operators after three of the seven visits within seven working days; and
- (d) no follow-up inspections were conducted by the LD.

Audit considers that the LD needs to take measures to strengthen monitoring of the Scheme Operators.

### *Safety Officer course providers*

3.22 To qualify as an RSO, a person shall possess an academic qualification recognised by the LD. An organisation may apply for its academic course to be recognised by the LD by submitting a proposal of the course and a full set of

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**Note 7:** *The seven aspects are: (a) venue features; (b) teaching aids; (c) presentation skills; (d) administration system; (e) examination session; (f) issuing of certificates; and (g) security steps.*



course materials for the LD's vetting. The LD publishes a list of courses as recognised academic qualifications for RSOs on its website. As at 30 June 2017, there were 29 recognised courses provided by ten institutions. Of the 29 courses, 16 were open for enrolment in 2016. The remaining 13 courses were ceased to be provided by the concerned institutions.

**3.23** *Guidance Notes on application for recognition of academic course not promulgated.* The LD promulgates Guidance Notes to facilitate the applications. For instance, the LD has promulgated Guidance Notes for application for recognition of MST courses and Guidance Notes for Registration as Safety Auditor Training Scheme Operator. However, Guidance Notes on applications for academic courses as recognised qualifications for RSOs were not promulgated. Audit considers that the LD needs to consider the need to promulgate such Guidance Notes.

**3.24** *No guidelines on inspection on recognised academic courses.* The LD had not devised guidelines on conducting inspections on recognised academic courses as qualification for RSOs. In 2016, there were 14 rounds of intakes for the 16 recognised courses. The LD had conducted 13 monitoring visits to the 14 rounds of intakes (Note 8). The LD documented the results of the visits in the same standard checklist used for monitoring visit to Safety Auditor Training Scheme Operator. However, only four of the seven aspects were inspected (i.e. venue features, teaching aids, presentation skills and administration system). Audit considers that the LD needs to devise inspection guidelines on recognised academic courses, specifying detailed inspection procedures such as the inspection frequency and the areas to be inspected (e.g. examination session).

## Audit recommendations

- 3.25** **Audit has recommended that the Commissioner for Labour should:**
- (a) **review whether there is a need to revise the FIU (SM) Regulation to address the shortcomings that some RSAs are not RSOs and, where necessary, consider initiating action to revise the Regulation;**

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**Note 8:** *One of the 14 rounds of intakes is a two-year programme. According to the LD, monitoring visit will be arranged in the second year of the programme (i.e. 2017).*

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- (b) **take measures to strengthen the monitoring of the Safety Auditor Training Scheme Operators;**
- (c) **promulgate guidelines on applications for academic courses as recognised qualifications for RSOs with a view to facilitating applications; and**
- (d) **devise internal guidelines on inspections on recognised academic courses for RSOs with a view to enhancing the effectiveness and efficiency of the inspections.**

## Response from the Government

3.26 The Commissioner for Labour agrees with the audit recommendations. He has said that:

- (a) the LD will take action to ensure that RSAs are RSOs; and
- (b) LD officers sit on the Board of Examination convened for each of the intakes of the Safety Auditor Training schemes where examination papers and certificates issued can be examined. The LD will refine the relevant Guidelines to strengthen monitoring of Safety Auditor Training Scheme Operators.

## Performance reporting

3.27 *Documents not available to substantiate actual performance.* The LD has published on its website three performance pledges, namely completion of processing applications within two weeks upon receipt and verification of all relevant information and documentation for:

- (a) registration as Safety Officers or Safety Auditors;
- (b) renewal or revalidation as Safety Officers; and
- (c) recognition of MST courses.

The LD reported on its website that the three pledges were fully met in 2016. However, no supporting documents were available to substantiate that the pledges had been achieved. Audit considers that the LD needs to keep supporting documents to substantiate the levels of performance achieved.

3.28 *Need to develop more performance pledges.* Audit noted that the LD has set two performance pledges on the processing of applications for registration/renewal/revalidation as RSOs and registration as RSAs. However, there was no performance pledge on the processing of applications for:

- (a) the recognition of Safety Auditor Training Scheme Operator; and
- (b) the recognition of academic course for Safety Officers.

Audit considers that the LD needs to consider developing performance pledges in this regard.

### **Audit recommendations**

3.29 **Audit has recommended that the Commissioner for Labour should:**

- (a) **strengthen the monitoring of the processing time of applications for:**
  - (i) **registration as RSOs or RSAs;**
  - (ii) **renewal or revalidation as RSOs; and**
  - (iii) **recognition of MST courses;**
- (b) **keep proper records to substantiate the achievement of performance pledges; and**
- (c) **consider developing performance pledges for processing of applications for the recognition of Safety Auditor Training Scheme Operator and academic course for Safety Officers.**

## **Response from the Government**

3.30 The Commissioner for Labour agrees with the audit recommendations. He has said that there is a mechanism in place to ensure the performance pledges are met. The LD has checked the concerned applications processed in the second half of 2016 and confirmed that the processing time of all applications met the performance pledges. The LD agrees that proper record should be kept in future to strengthen monitoring of meeting the pledges.

## **PART 4: OCCUPATIONAL HEALTH**

4.1 This PART examines the work of the LD on occupational health, focusing on the following areas:

- (a) medical examination of radiation workers (paras. 4.4 to 4.17);
- (b) workplace inspection (paras. 4.18 to 4.22); and
- (c) performance reporting (paras. 4.23 to 4.26).

### ***Background***

4.2 The two Occupational Medicine Divisions, and the three Occupational Hygiene Divisions (OHDs) of the OSHB (see Appendix B) are responsible for preventing occupational diseases and promoting health at work (Note 9).

4.3 The work of the divisions mainly includes:

- (a) providing occupational clinical services at the Kwun Tong Occupational Health Clinic (KTOHC) and the Fanling Occupational Health Clinic (Note 10);

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**Note 9:** *Under the OSHB, there are four Integrated Services Teams. These Teams carry out inspections of workplaces to enforce legislation relating to occupational health in addition to occupational safety (see para. 2.2(b)(iii)).*

**Note 10:** *Consultation at the clinics is by appointment in person or by phone. Doctors' referrals are not required. Consultation fees are set at the same level as other government specialist clinics.*

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- (b) providing medical examination services (Note 11) for workers prone to exposure to radiation;
- (c) providing medical examination services for civil servants who are exposed to occupational hazards (Note 12);
- (d) conducting sick leave clearance interview of employees with compensation claims;
- (e) providing advisory services to the public, organising exhibitions and delivering talks on health and hygiene aspects of occupational health issues; and
- (f) conducting inspections and surveys to enforce legislation relating to occupational health and hygiene.

Table 15 shows their outputs in the period from 2012 to 2016.

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**Note 11:** *Under the subsidiary regulations of the Radiation Ordinance (Cap. 303), workers prone to exposure to radiation are required to undergo medical examinations.*

**Note 12:** *The examinations are conducted at the request of some government departments to safeguard the health of workers prone to exposure to specific occupational hazards (e.g. asbestos and noise).*

Table 15

**Outputs of occupational health work  
(2012 to 2016)**

<b>Nature of work</b>	<b>2012 (No.)</b>	<b>2013 (No.)</b>	<b>2014 (No.)</b>	<b>2015 (No.)</b>	<b>2016 (No.)</b>
Clinical consultation	13,007	11,855	10,396	9,054	10,444
Survey (Note 1)	6,676	6,577	6,258	5,978	7,018
Inspection	3,755	3,616	3,492	3,664	4,205
Investigation (Note 2)	2,979	2,884	3,093	3,433	2,983
Medical examination	1,364	1,692	1,929	1,639	1,471
Talk	1,178	1,069	1,186	1,239	1,243
Assessment (Note 3)	2,411	2,278	488	1,488	713

*Source: Audit analysis of LD records*

*Note 1: A survey is an activity which involves detailed examination at the workplace on a particular potential health hazard (e.g. lighting and thermal) or an unhealthy work process which requires detailed scientific measurement. Surveys form part of the work undertaken by LD staff in workplace inspections.*

*Note 2: These were investigations on occupational diseases or work-relatedness of workers' health problems by doctors of the OSHB.*

*Note 3: These were assessments of medical fitness for pilots and air traffic control officers.*

## **Medical examinations of radiation workers**

4.4 Under the subsidiary regulations of the Radiation Ordinance (Cap. 303), workers prone to exposure to radiation are required to undergo medical examinations for their first employment and subsequently at an interval not exceeding 14 months during the continuance of such employment. The objective is to safeguard the health of the workers and to ensure that they are medically fit for the work.

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4.5 The Radiation Board formed under the Radiation Ordinance appoints the Radiation Board Medical Panel to examine workers handling radioactive substances and irradiating apparatus. The Board is chaired by the Director of Health. Panel members are occupational health officers from the Occupational Medicine Division (Clinical Services). In 2016, a total of 834 examinations were carried out at the KTOHC of the Occupational Medicine Division (Clinical Services) (Note 13).

### *Many reserved time slots not used*

4.6 Every year in September, based on the estimated number of radiation medical examinations to be carried out, the KTOHC reserves a consultation room for a number of morning sessions of the forthcoming year exclusively for carrying out the examinations. A medical doctor mans each of the reserved sessions. No other clinical service will be provided by the doctor during the reserved sessions.

4.7 *Some time slots not used due to no-show cases.* For each reserved session, 30 radiation medical examinations can be carried out. Staff of the Department of Health (as secretariat for the Radiation Board) would remind all workers of their appointments three days in advance. The KTOHC's records showed that for each year in the period from 2012 to 2017 (up to June), there were on average 2.7 to 4.2 no-show cases per session. The no-show rates ranged from 11% to 15% (see Table 16).

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**Note 13:** *Upon receipt of applications from hospitals and universities, the Radiation Board Medical Panel may grant approval for them to conduct the concerned medical examinations for their staff at their facilities.*



Table 16

**Analysis of radiation examinations conducted  
(2012 to 2017)**

	2012	2013	2014	2015	2016	2017 (Jan to June)
<b>Total</b>						
No. of sessions (a)	30	33	36	38	37	18
No. of examinations (b)	707	787	858	860	834	350
<b>Number of workers booked per session</b>						
Average (c)	27.8	27.2	27.0	25.6	25.2	22.9
Range (d)	21-30	23-30	19-30	21-30	10-30 (Note)	16-29
<b>Number of workers examined per session</b>						
Average (e) = (b) ÷ (a)	23.6	23.8	23.8	22.6	22.5	19.4
Range (f)	18-28	20-29	17-29	15-29	8-29 (Note)	15-24
<b>Number of no-show cases per session</b>						
Average number of cases (g) = (c) – (e)	4.2	3.4	3.2	3.0	2.7	3.5
Percentage of booked slots (h) = (g) ÷ (c) × 100%	15%	13%	12%	12%	11%	15%

Source: Audit analysis of LD records

Note: In one session, there were ten workers booked for examinations and eight workers examined. For each of the other sessions, the number of workers booked ranged from 15 to 30 and the number of workers examined ranged from 14 to 29.

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4.8 **Room for reducing the number of reserved sessions.** As indicated in Table 16 (see para. 4.7), the average number of workers booked for medical examinations in each session decreased from 27.8 in 2012 to 22.9 in the first six months of 2017. Further analysis revealed that the number of sessions in which not more than 20 medical examinations of radiation workers were carried out increased from 17% in 2012 to 24% in 2016 and further to 56% (10 of 18 sessions) in the first six months of 2017 (see Table 17).

**Table 17**

**Analysis of radiation examinations conducted in each session  
(2012 to 2017)**

Number of examinations conducted per session	Number of sessions					
	2012	2013	2014	2015	2016	2017 (up to June)
1 – 20	5 (17%)	3 (9%)	5 (14%)	12 (32%)	9 (24%)	10 (56%)
21 – 30	25 (83%)	30 (91%)	31 (86%)	26 (68%)	28 (76%)	8 (44%)
1 – 30	30 (100%)	33 (100%)	36 (100%)	38 (100%)	37 (100%)	18 (100%)

*Source: Audit analysis of LD records*

4.9 In 2016, the waiting time for clinical consultations at the two occupational health clinics ranged from 7 to 14 days. Tables 16 and 17 indicate that the clinical resources reserved for radiation medical examinations were not optimally utilised. The LD needs to, in collaboration with the Department of Health, monitor the situation and make necessary arrangements with a view to ensuring that occupational clinical resources reserved for radiation medical examinations are optimally utilised as far as practicable. Where resources are available, they should be redeployed to shorten the waiting time for clinical consultations.

*Need to review the recovery of examination costs*

4.10 Under the subsidiary regulations of the Radiation Ordinance, radiation workers are required to undergo pre-employment medical examinations and periodic examinations thereafter. The regulations stipulate that the examinations carried out for their first employment would be provided free of charge. The regulations do not stipulate that the periodic examinations carried out after their first employment would be provided at a charge or free of charge.

4.11 Audit noted that workers and their employers were not required to pay any fee for the radiation medical examinations conducted at the KTOHC, both for the workers' first employment and after their first employment. The LD had no readily available statistics for the number of pre-employment medical examinations and that of periodic examinations thereafter.

4.12 According to Financial Circular No. 6/2016 issued by the Financial Services and the Treasury Bureau in July 2016, it is Government's policy that fees charged should in general be set at levels adequate to recover the full cost of providing the goods and services. The fees should therefore be set at a level aiming at the attainment of full-cost recovery.

4.13 The LD needs to, in collaboration with the Department of Health, review the justifications for not charging radiation workers or their employers for periodic examinations carried out after the workers' first employment.

*Need to improve performance pledge*

4.14 For occupational clinical service, the LD has set a performance pledge that clients at the two occupational health clinics would be attended to within 30 minutes of the appointment time.

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4.15 For 2016, the LD reported on its website 100% achievement for meeting the performance pledge. Audit examination revealed that although the pledge was originally meant to provide clinical service to clients within 30 minutes of the appointment time, staff at the clinics had interpreted the pledge as referring to the time required to attend to the clients and register their arrival. Hence, the 100% achievement was only the achievement of approaching the clients to register their arrival within 30 minutes.

### Audit recommendations

4.16 **Audit has recommended that the Commissioner for Labour should:**

- (a) **in collaboration with the Director of Health, take measures to reduce the no-show rate of radiation workers for medical examinations;**
- (b) **monitor the utilisation of time slots reserved for medical examinations for radiation workers to ensure that the clinical resources are optimally utilised as far as practicable;**
- (c) **in collaboration with the Director of Health, review the justifications for not charging radiation workers or their employers for periodic medical examinations carried out at the KTOHC after the workers' first employment; and**
- (d) **spell out clearly that the performance pledge is to provide clinical service to clients within 30 minutes of the appointment time.**

### Response from the Government

4.17 The Commissioner for Labour agrees with the audit recommendations. He has said that the LD will consult the Director of Health on the implementation of those recommendations relevant to the Department of Health.

## Workplace inspection

### *Need to monitor progress of workplace inspections*

4.18 Audit noted that the LD did not monitor:

- (a) the number of outstanding inspections, i.e. the inspections already brought up for inspection but not yet carried out; and
- (b) the delay in carrying out inspections after they were brought up.

4.19 ***Long outstanding inspections.*** In 2016, the OSHB conducted 4,205 inspections on occupational health (see Table 15 in para. 4.3). Of the 4,205 inspections, 2,030 (48%) were conducted by the OHD for Hong Kong and Kowloon (OHD(H)). Audit selected 30 outstanding inspections of the OHD(H) as at 30 June 2017 and performed an ageing analysis to ascertain the time lapse since the inspections were brought up. Audit found that all the 30 inspections had been outstanding for more than six months (see Table 18). The outstanding periods ranged from 7 months to 4.25 years, averaging 2.17 years.

**Table 18**

**Analysis of time lapse of 30 outstanding inspections  
(30 June 2017)**

<b>Time lapse</b>	<b>Number of outstanding inspections</b>
> 6 months to 1 year	6 (20%)
> 1 year to 2 years	7 (24%)
> 2 years to 3 years	10 (33%)
> 3 years to 4 years	6 (20%)
> 4 years to 5 years	1 (3%)
Total	30 (100%)

*Source: Audit analysis of LD records*

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4.20 *Long delay in carrying out inspections.* Audit selected two inspections conducted in each month by the OHD(H) in the period from July 2016 to June 2017. For the 24 inspections selected, Audit compared the dates of inspections with the bring-up dates to identify those inspections with delays. Audit found that there were delays in 13 (54%) of the 24 inspections (see Table 19). The delay ranged from 4 days to 3 years, averaging 11 months.

**Table 19**

**Delay in carrying out inspections  
(July 2016 to June 2017)**

<b>Delay (Year)</b>	<b>Number of inspections</b>	
No delay	11 (46%)	} 13 (54%)
≤ 1 year	8 (33%)	
> 1 year to 2 years	4 (17%)	
> 2 years to 3 years	1 (4%)	
Total	24 (100%)	

*Source:* Audit analysis of LD records

*Remarks:* The delay ranged from 4 days to 3 years.

## Audit recommendations

4.21 **Audit has recommended that the Commissioner for Labour should:**

- (a) **closely monitor the progress of workplace inspections;**
- (b) **compile management information on the outstanding inspections, e.g. the number of and the ageing analysis of such inspections;**
- (c) **take measures to minimise the number of outstanding inspections in future; and**

- (d) ascertain the number of existing backlog inspections and take effective measures to clear the backlog as soon as practicable.

## Response from the Government

4.22 The Commissioner for Labour agrees with the audit recommendations. He has said that:

- (a) inspections on occupational health adopt a risk-based approach. The relevant Technical Note of the LD stipulates that workplaces identified as high-risk or moderate-risk should be brought up for inspection within prescribed timeframes;
- (b) under the bring-up mechanism, low-risk cases do not need to be brought up and do not have a prescribed inspection deadline; and
- (c) while noting that all cases of outstanding/delayed inspections identified (except for one) are low-risk cases, the LD agrees that proper use of the bring-up system should be monitored in accordance with the risk-based inspection approach so as to address the backlog situation.

## Performance reporting

### *Need to improve reporting of performance indicators in COR*

4.23 For occupational health services, the LD reports the number of “investigations/surveys/examinations/assessments/clinical consultations” in the COR as its performance indicator. For 2016, the LD reported in the COR that it had achieved 22,629 “investigations/surveys/examinations/assessments/clinical consultations” (see Table 1 in para. 1.7). Audit noted that the number comprised:

- (a) 2,983 investigations;
- (b) 7,018 surveys;
- (c) 1,471 medical examinations;

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- (d) 713 assessments; and
- (e) 10,444 clinical consultations at the two occupational health clinics.

4.24 Audit found that the information reported in the COR needed improvement. Under the LD's method of calculating the number of surveys:

- (a) for each survey conducted by more than one officer, the LD counted as if there was one survey for each officer; and
- (b) for each survey which lasted for more than one half-day period, the LD counted as if there was one survey for each half-day period.

## Audit recommendations

4.25 **Audit has recommended that the Commissioner for Labour should:**

- (a) **with a view to enhancing transparency, consider reporting separately in the COR the number of investigations, surveys, examinations, assessments and clinical consultations; and**
- (b) **review the appropriateness of the existing method of calculating and presenting the number of surveys reported in the COR.**

## Response from the Government

4.26 The Commissioner for Labour agrees with the audit recommendations. He has said that owing to the varied complexity of different surveys, the LD reports the number of surveys in such a manner to accurately reflect the manpower deployed to conduct surveys. For instance, for sizeable workplaces such as hospitals, a particular kind of survey may have to be conducted more than once in different locations of the workplace, hence more than one survey will be counted as a result. The LD will provide information on how the surveys are calculated in the COR.



**Appendix A**  
(para. 1.5 refers)

**List of occupational diseases**  
(31 July 2017)

<b>Caused by physical agents</b>	
1	Inflammation, ulceration or malignant disease of the skin or subcutaneous tissues or of the bones, or blood dyscrasia, or cataract, due to electro-magnetic radiations (other than radiant heat), or to ionising particles
2	Heat cataract
3	Dysbarism, including decompression sickness, barotrauma and osteonecrosis
4	Cramp of the hand or forearm due to repetitive movements
5	Subcutaneous cellulitis of the hand (Beat hand)
6	Bursitis or subcutaneous cellulitis arising at or about the knee due to severe or prolonged external friction or pressure at or about the knee (Beat knee)
7	Bursitis or subcutaneous cellulitis arising at or about the elbow due to severe or prolonged external friction or pressure at or about the elbow (Beat elbow)
8	Traumatic inflammation of the tendons of the hand or forearm (including elbow), or of the associated tendon sheaths
9	Carpal tunnel syndrome
<b>Caused by biological agents</b>	
10	Anthrax
11	Glanders
12	Infection by leptospira
13	Pulmonary disease due to the inhalation of the dust of mouldy hay or other mouldy vegetable produce, and characterised by symptoms and signs attributable to a reaction in the peripheral part of the bronchopulmonary system, and giving rise to a defect in gas exchange (Farmer's lung)
14	Infection by organisms of the genus brucella
15	Tuberculosis
16	Parenterally contracted viral hepatitis
17	Infection by streptococcus suis
18	Avian chlamydiosis
19	Legionnaires' disease
20	Severe acute respiratory syndrome
21	Avian influenza A

**Appendix A**  
(Cont'd)  
(para. 1.5 refers)

<b>Caused by chemical agents</b>	
22	Poisoning by lead or a compound of lead
23	Poisoning by manganese or a compound of manganese
24	Poisoning by phosphorus or an inorganic compound of phosphorus or the anti-cholinesterase or pseudo anti-cholinesterase action of organic phosphorus compounds
25	Poisoning by arsenic or a compound of arsenic
26	Poisoning by mercury or a compound of mercury
27	Poisoning by carbon bisulphide
28	Poisoning by benzene or a homologue of benzene
29	Poisoning by a nitro- or amino- or chloro-derivative of benzene or of a homologue of benzene, or poisoning by nitro-chlorobenzene
30	Poisoning by dinitrophenol or a homologue or by substituted dinitrophenols or by the salts of such substances
31	Poisoning by halogen derivatives of hydrocarbons of the aliphatic series
32	Poisoning by diethylene dioxide (dioxan)
33	Poisoning by chlorinated naphthalene
34	Poisoning by oxides of nitrogen
35	Poisoning by beryllium or a compound of beryllium
36	Poisoning by cadmium
37	Dystrophy of the cornea (including ulceration of the corneal surface) of the eye
38	Primary epitheliomatous cancer of the skin
39	Chrome ulceration including perforation of nasal septum
40	Primary neoplasm of the epithelial lining of the urinary tract (renal pelvis, ureter, bladder and urethra), including papilloma, carcinoma-in-situ and invasive carcinoma
41	Peripheral poly-neuropathy
42	Localised new growth of the skin, papillomatous or keratotic
43	Occupational vitiligo

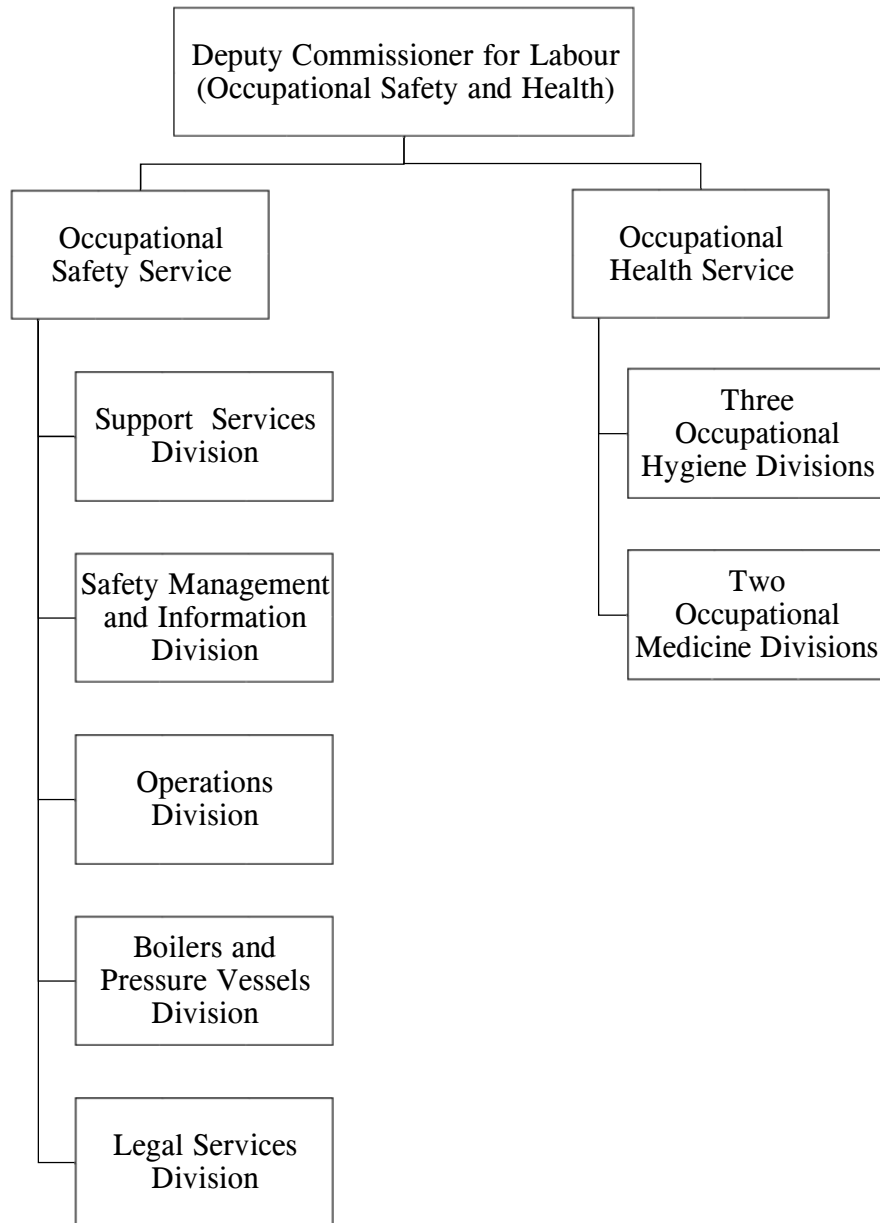
**Appendix A**  
(Cont'd)  
(para. 1.5 refers)

<b>Caused by miscellaneous agents</b>	
44	Inflammation or ulceration of the skin produced by dust, liquid or vapour (including the condition known as chloracne but excluding chrome ulceration)
45	Inflammation or ulceration of the mucous membrane of the upper respiratory passages or mouth produced by dust, liquid or vapour
46	Carcinoma of the nasal cavity or associated air sinuses (nasal carcinoma)
47	Byssinosis
48	Occupational asthma
<b>Caused by inhalation of silica or asbestos</b>	
49	Silicosis
50	Asbestosis
51	Mesothelioma
<b>Other</b>	
52	Occupational deafness

*Source: LD records*

*Remarks: Items 1 to 48, items 49 to 51 and item 52 are occupational diseases prescribed under the ECO, the Pneumoconiosis and Mesothelioma (Compensation) Ordinance and the Occupational Deafness (Compensation) Ordinance respectively.*

**LD's OSHB:  
Organisation chart (extract)  
(31 March 2017)**



*Source: LD records*

**List of 23 trades identified by LD as hazardous trades  
(31 July 2017)**

<b>Item</b>	<b>Trade</b>
1	Agriculture and livestock production and agriculture services
2	Beverage manufacturing
3	Catering
4	Container handling services, car parks, toll bridge, road or vehicular tunnel operation
5	Food manufacturing
6	Godowns
7	Hong Kong Government Departments (limited to those trades in individual government workplaces bearing risk levels comparable to other hazardous trades of the list)
8	Hotels
9	Laundries
10	Manufacture of electrical machinery, apparatus, appliances and supplies
11	Manufacture of non-metallic mineral products
12	Manufacture of plastic products
13	Manufacture of wearing apparel
14	Metal products
15	Printing
16	Property management and guard services
17	Repair services
18	Sanitary and similar services
19	Ship building and ship repairing
20	Supermarkets and convenience stores, department stores and fuel related stores
21	Textiles
22	Waste recycling industry
23	Welfare institutions

*Source: LD records*

### Acronyms and abbreviations

Audit	Audit Commission
BEC	Building and engineering construction
COR	Controlling Officer's Report
DoJ	Department of Justice
DSO	Divisional Occupational Safety Officer
ECO	Employees' Compensation Ordinance
FIUO	Factories and Industrial Undertakings Ordinance
FIU (SM)	Factories and Industrial Undertakings (Safety Management)
FIU (SOSS)	Factories and Industrial Undertakings (Safety Officers and Safety Supervisors)
ISG	Integrated Services Group
KTOHC	Kwun Tong Occupational Health Clinic
LD	Labour Department
LegCo	Legislative Council
MIP	Mega Infrastructure Project
MPR	Monthly Progress Report
MST	Mandatory safety training
OHD	Occupational Hygiene Division
OHD(H)	Occupational Hygiene Division for Hong Kong and Kowloon
OSHB	Occupational Safety and Health Branch
OSHO	Occupational Safety and Health Ordinance
RSA	Registered Safety Auditor
RSO	Registered Safety Officer
TCP	Training course provider