



## 工程和物業管理 工地安全研討會 2018

Site Safety Forum for Works Contracts and  
Property Services Contracts

# 安全工地作業之關愛文化 新工程高危作業之安全管理

房屋署副署長（發展及建築）  
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3-7-2018



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## ‘4C’ 核心價值

- 關懷為本
- 盡心為本
- 顧客為本
- 創新為本



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## 千人意外率 及 建築工地死亡意外



資料來源：勞工處、政府統計處及房委會工地報告

- ◆ 香港建造業
- 房委會新工程
- ▲ 房委會維修保養工程
- 香港建造業
- 房委會新工程
- 房委會維修保養工程

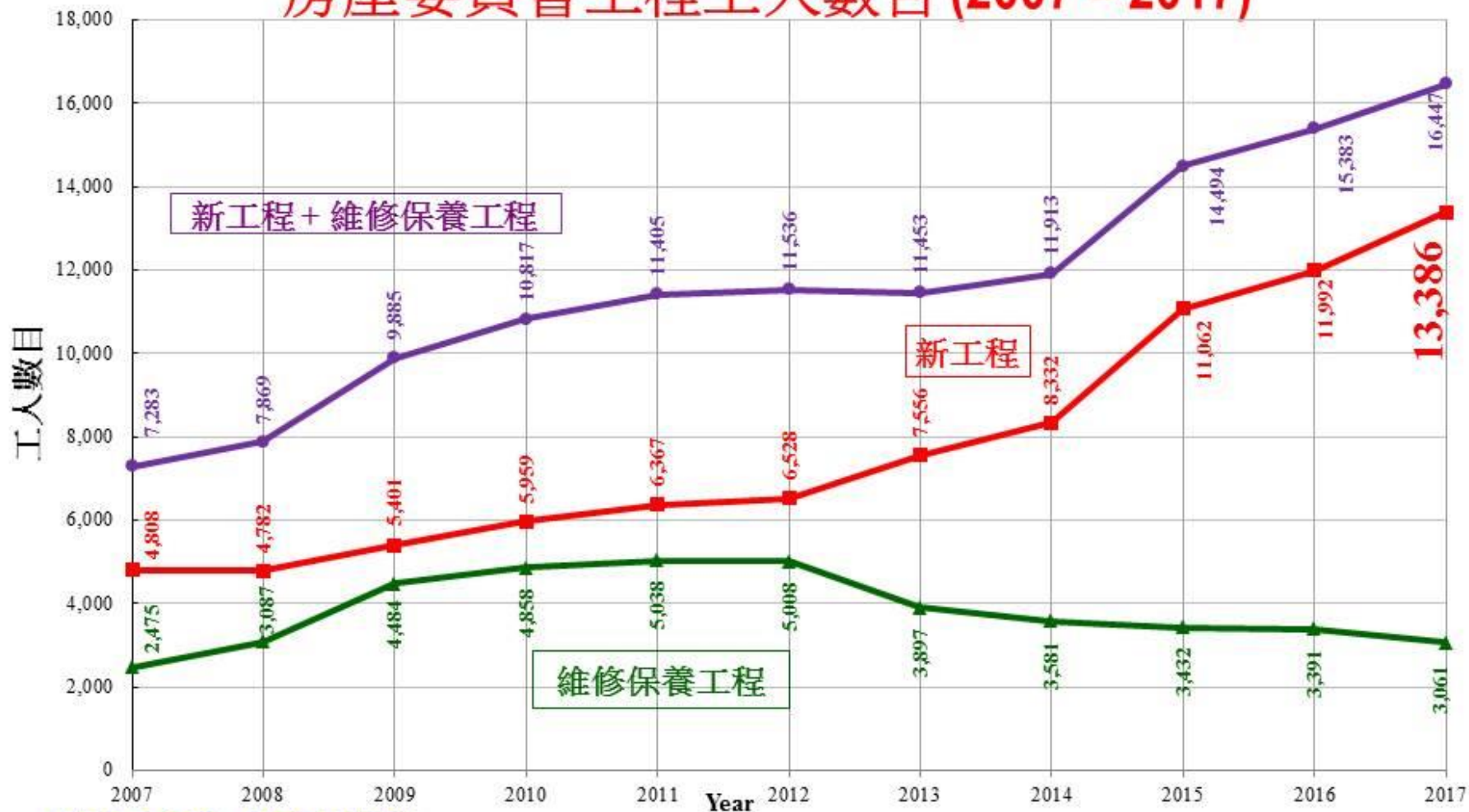
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# 工程和物業管理 工地安全研討會 2018

Site Safety Forum for Works Contracts and Property Services Contracts

## 房屋委員會工程工人數目 (2007 - 2017)



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## 以「三管齊下方式」推動工地安全

### (1) 採購策略和表現監察

名冊新要求 ISO 45001

### (2) 合約條款及管理

安全氣候指數調查(SCI)  
工作安全行為計劃(WSB)  
建築業安全督導員認證計劃  
應用RFID讀卡系統  
天秤吊運  
利用手提電話及網絡報告安全事故

### (3) 研究、培訓和推廣

增加使用預製件  
增加使用預製件-組裝建築  
持續應用建築信息模擬  
舉辦安全講座、上載資訊於安全網站、發出安全提示



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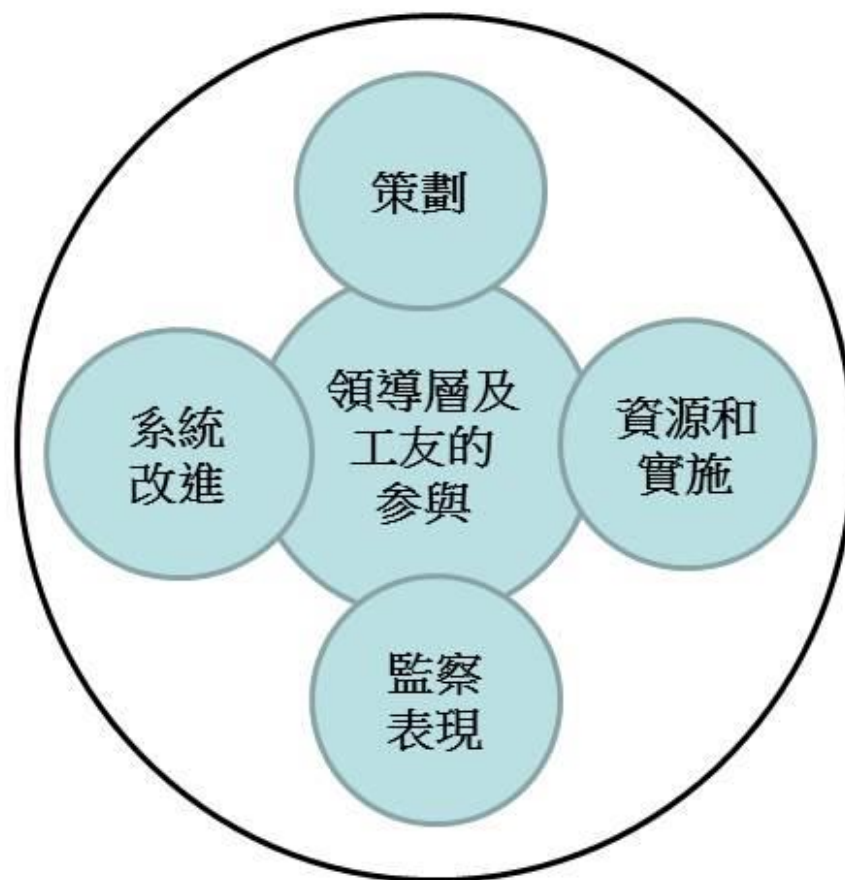
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## (1) 採購策略和表現監察 名冊新要求 ISO 45001

- 現時工程承建商及承辦商人冊條件包括 **OHSAS 18001**
- 隨着職業健康及安全管理系統 **ISO 45001** 於2018年3月12日推出，工程承建商須於**3年過渡期**內取得 **ISO 45001** 認證
- **ISO 45001** 提出最基本要求保障員工，採用風險管理方式，強調**策劃、領導層及工友參與、資源投入和實施、持續監察安全及健康的表現，及系統的改進**



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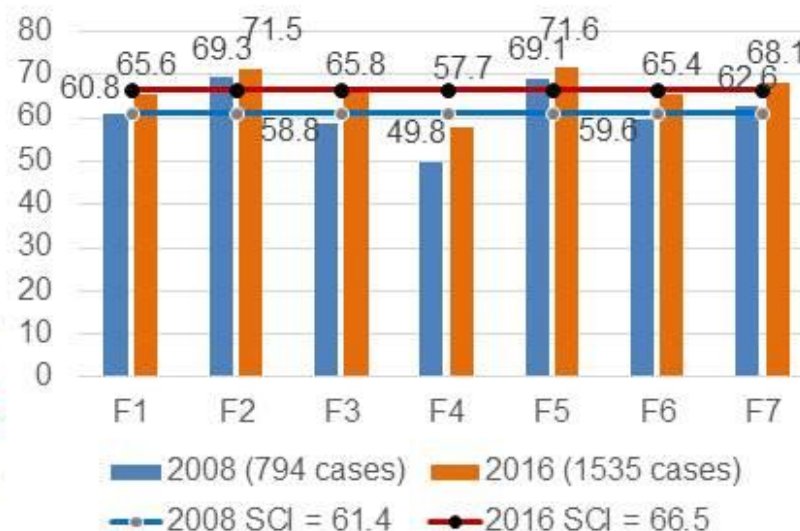


## (2) 合約條款及管理

### 1. 安全氣候指數調查(SCI) (草擬中)

- 現時**SCI**是安全稽核審查項目之一
- 擬將**SCI**加入合約要求，**了解員工** (包括管理層、工地督導人員和工人)**對工作安全的認知和認同**
- 指出了現時的工作安全氣候指數水平與**有待改善的範疇**
- 機構須於一段時間後再進行工作安全氣候指數調查，調查以確定其工作安全氣候指數水平是否已被提升。

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## (2) 合約條款及管理

### 2. 工作安全行為計劃(WSB) (草擬中)

- 現時**WSB**是安全稽核審查項目之一
- 工友行為與他們在工地的安全表現關係密切
- 擬將**WSB**加入合約要求，以便透過觀察工人的行為、進行分析和找出工地安全的問題所在
- 設定目標和提供培訓
- 建立新的觀察清單，以提升質素。

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扎鐵工作安全行為觀察表

觀察員姓名：\_\_\_\_\_ 觀察日期：\_\_\_\_\_

觀察地點：\_\_\_\_\_ 觀察時間：\_\_\_\_\_

項目	觀察項目	安全行為	危險行為	未能觀察
1	工作前檢查履帶是否處於安全操作狀態 (如緊急制及護罩)			
2	工作時戴緊合備及狀態良好的個人防護裝備 (如安全帽、耳塞/耳罩、安全鞋及防手震等)			
3	正確圍封危險區域			
4	工人應於材料指定位置正確堆疊			
5	電線正確鋪設			
6	使用合適及狀態良好的工作平台進行離地工作			
7	正確使用全身式安全帶及扣好於穩固點上 (安全帶繫於穩固的結構點，而非使用防墮器)			
8	進行離地工作時，工具須繫上工具的手繩進行工作			
9	採用正確姿勢及方法進行人力運搬搬運 (如保持腰背挺直及足夠人手搬運)			
10				
11				
12				
13				

備註 (如適用)：\_\_\_\_\_

總數

安全表現% =	安全行為總數 (安全行為總數 ÷ 危險行為總數) × 100	
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## (2) 合約條款及管理

### 3. 建築業安全督導員認證計劃(草擬中)

- 提升安全督導員質素
- 須從職業安全健康局管理之香港安健認證計劃下取得認可資歷
- 透過職業安全健康局及建造業議會開辦之建築業安全督導員進階課程或考核渠道考取認證

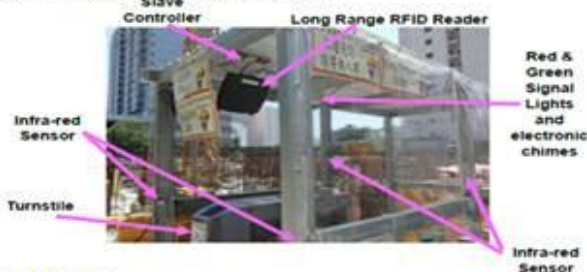




## (2) 合約條款及管理

### 4. 應用RFID讀卡系統(草擬中)

- 應用於機械，確保由核准人員操作，例如吊船、貓仔裝載、流動升降台、挖泥機，提高操作安全
- 監管出入並作出紀錄，應用於高危作業區域，例如使用導向吊船之升降機槽、特定而較隱閉之圍封區



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## (2) 合約條款及管理

### 5. 天秤吊運 (草擬中)

提升天秤操作安全，防止物料下墮

- 為天秤安排定期檢查及維修工作
- 為每部天秤提供獨立供電系統
- 駕駛室安裝閉路電視監察系統，並有錄影功能，以協助觀察天秤手的操作情況
- 將視像監察鏡頭安裝於吊鉤上方，確保天秤手能清楚觀察吊運區情況
- 處理值班安排，令天秤手得到休息
- 推行訓練年輕天秤手計劃



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## (2) 合約條款及管理

### 6. 利用手提電話及網絡報告安全事故

- 從2016年5月起，工地承建商開始透過網絡報告安全事故
- 從2017年1月起，房署工地監督人員開始透過手提電話連通網絡報告安全事故
- 預計由2018年8月起，房署工地承建商將開始透過手提電話連通網絡報告安全事故
- 2018年年底前，其他手機應用程式包括 site direction / site memo, site alert 及 structural inspection 會相繼啟用，有助提升工地安全



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## (3) 研究、訓練和推廣以培育安全文化

### 1. 增加使用預製件 (研究中)

- 減少高空工作，提升工地安全
- 減少地盤工序，改善工地整理



探討使用預製結構牆、升降機槽、組裝建築

2011 - 天台使用預製件

使用預製浴室，將預製件使用提升至 35%

2008 - 於住宅單位使用平面預製件，將預製件使用提升至 20%

90s - 標準住宅大廈使用平面預製件，預製件使用佔整體石屎 18%

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## (3) 研究、訓練和推廣以培育安全文化

### 2. 增加使用預製件 - 組裝建築 (研究中)

- 2017年派員往新加坡實地考察
- 安排建築工序於工廠內之進行，帶來很多好處：
  - 提升工作場所安全
  - 減少建築工程受天氣影響
  - 更有效給工友分配工作及進行監督，提高生產力
  - 達致較佳之工藝水平
  - 減低工地產生沙塵及噪音，降低對環境之影響
  - 減少工地上工友之數目
  - 減少碳排放

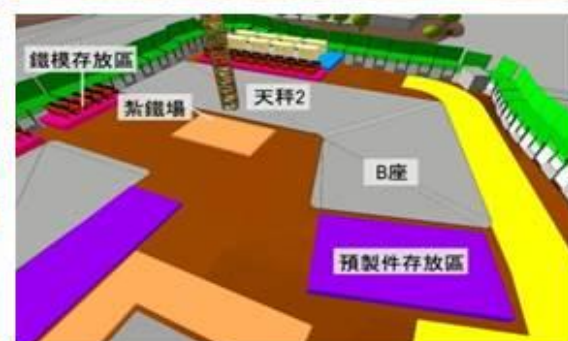
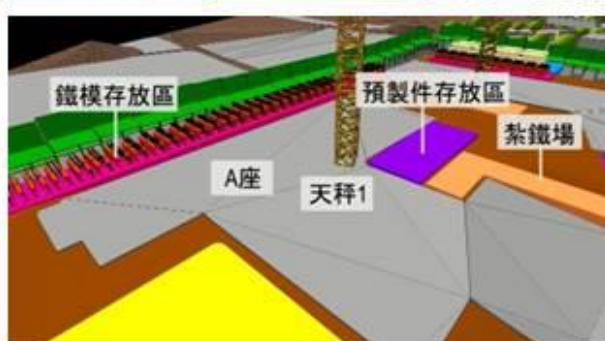
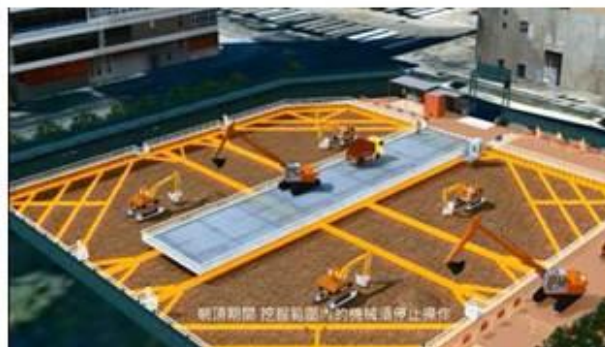
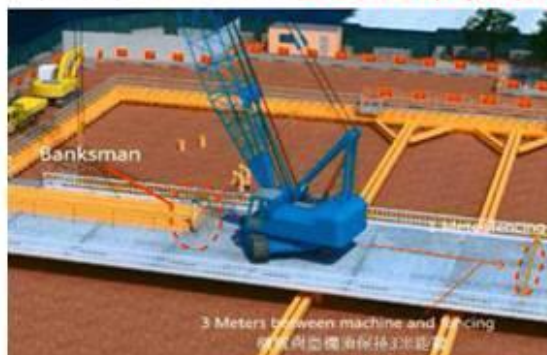




## (3) 研究、訓練和推廣以培育安全文化

### 3. 持續應用建築信息模擬(BIM)

- 模擬工作程序，識別危害，及作出消除或減低風險之措施
- 用於工地安全訓練課程，令工程團隊掌握安全施工方法



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### (3) 研究、訓練和推廣以培育安全文化

#### 4. 舉辦安全講座、上載資訊於安全網站、發出安全提示

- 為承建商、承辦商及房署工程人員舉辦安全講座
- 更新安全網站，發出安全提示，提升前線人員警覺性
- 透過安全支付計劃，鼓勵承建商參加職安健比賽，舉辦工地安全獎勵計劃，以激勵施工團隊提高工地安全與健康水平



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# 安全第一

關愛由心做，安全無煩惱

“Caring from the Heart  
Safety at Ease”

<http://www.housingauthority.gov.hk/sitesafety>

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Here is the footage of  
Site Safety Forum 2018 for Works Contracts and Property Services  
Contracts

which was held on 3 July 2018

The speaker is

Deputy Director of Housing (Development and Construction)  
cum Chairman of Housing Department Site Safety Sub-committee  
Ms. Connie K Y Yeung

She is now delivering the keynote speech

\*\*\*\*\*

(00:29)

Dear OSHC Chairman Dr. Alan Chan

CIC Chairman Mr. Chan Ka Kui

Dear representatives of the supporting organisations  
guests and colleagues, good afternoon everyone

The Housing Authority (HA)

has been co-organising the Site Safety Forum  
with the industry for 12 years since 2007

Here, I would like to express my gratitude  
to all of you for the tremendous support over the years

The annual Site Safety Forum provides  
an opportunity for members of the industry to exchange  
experiences in enhancing safety at the workplace

There were different themes in the past forums

The theme of this year's forum is

“Caring Culture for Safe Work Practice”

We have been promoting site safety in different ways  
such as safety design

refining site management model and work process

upgrading safety devices and

fostering a proper mentality towards safety

with the objective to safeguard

the safety and health of workers  
All arise from our care for the frontline staff  
The HA embraces the core values 4C  
'Caring' is one of core values 4 Cs,  
and this core value drives us to be dedicated  
This core value drives us to contribute  
to the safety performance of construction projects

Just now our Director has said  
Let me test your memory  
because there was no powerpoint slide  
In 2017, the accident rate per thousand workers of  
the HA New Works was 6.9  
which was broadly the same  
as the accident rate of 6.8 in 2016  
Basically, it was in line  
with the site safety strategy of the Housing Authority  
that was below  
the upper limit of accident rate of 9 accidents  
as laid down in the site safety strategy by the HA  
and lower than that of the local construction industry  
at 32.9 accidents per thousand workers in the same year  
However we will not be complacent  
You should remember, in 2017  
fatalities occurred in both the local construction industry  
and the HA's New Works contracts  
Our workers lost their lives  
Two of these were recorded  
in the HA's New Works contracts  
and the total number of fatal accidents  
in the Hong Kong construction industry increased to 22  
Most of these accidents involved high-risk activities  
Hence we need to strengthen our efforts on different fronts  
to bring down the number of fatal accidents to zero  
One of the challenges faced by the HA

in improving site safety  
is the safety culture amongst workers  
The number of workers on the HA's New Works sites  
continued to increase and it reached around 13000 in 2017  
The workload for construction industry is large  
and supply of site supervisory staff is limited  
These circumstances pose great challenges to site safety

Just as mentioned by Mr. Ying, the HA has adopted  
a three-pronged safety management strategy  
to raise site safety standards

How to implement?

First, by enhancing the procurement strategy  
and performance monitoring mechanism

Second, by strengthening contract requirements  
on the design of hardware and software

Third, by making practical efforts on research, training  
and promotion of site safety awareness

Regarding the first strategy

I will only talk about the main points  
because there are many measures in it

Currently, works contractors

who want to be included in our List

are required to have the OHSAS 18001 certification

which everyone here is familiar with

With the implementation of the ISO 45001 certification  
in Occupational Health and Safety Management System  
launched on 12 March, 2018

works contractors must obtain ISO 45001 certification  
during the three-year transitional period

We have 3 years for everyone to prepare

What is ISO 45001?

You can see the details on the ISO website

The circular image on the screen

can also be seen on the ISO website  
It adopts a risk management approach  
with emphasis on strategic planning  
leadership, and participation of workers

Regarding the second strategy  
on contract terms and management  
we have been exploring a series of enhancement measures  
for New Works since late 2017

We add a series of enhancement measures  
for New Works contracts

There are many of them

I have chosen six of them to share with you  
to make a key introduction

The first of the six, we are drafting contract requirements  
on Safety Climate Index abbreviated as SCI  
for inclusion into the contract

What is the effect?

It serves to gauge frontline employees' awareness  
and acceptance of work safety  
to identify areas for improvement

The organization needs to conduct a survey  
for a period of time to see if there is a rise in the index

It is the first item that we are drafting

The second measure is being drafted  
and will be added to the contract requirements

What is it?

It is Work Safe Behaviour Programme

Workers' behaviour is closely related  
to the safety performance on site

By observing workers' behaviour  
and identifying the problems

the targets could be defined

I hope this is a more pragmatic approach

We require certain participation of workers



setting up goal and providing suitable training

What is the third item?

Everyone should know that the quality of safety supervisors is very important in monitoring site safety

We will implement

the construction safety supervisor accreditation scheme

Safety supervisors will be required to possess qualifications and get accredited

by the Hong Kong Safety and Health Certification Scheme under the OSHC

This idea is being drafted

The fourth is to use technology to increase safety elements for site management and machinery equipment

What is the plan for our New Works contract?

We would apply RFID card reader system

to machinery equipment to ensure that the related machinery will be operated

by approved staff to improve operational safety

By using the RFID card reader system for access monitoring

it could provide a relatively accurate record of access especially for high-risk areas such as the lift shaft guided-suspended working platform in lift shaft and specific enclosed areas at concealed locations

The fifth item is for tower crane

As we all know tower crane lifting is a high-risk activity

We are drawing up various measures to prevent falling object

We will include sufficient regular inspection

to provide separate power supply for tower crane

For operator's cabin

CCTV surveillance system should be installed

to install video surveillance camera above the hook

to allow shift duty arrangement

as tower crane operator needs to concentrate at work  
we need to allow them to take appropriate rest  
so the operators need to take appropriate rest  
The last and the most important thing  
to train the young operators  
We hope to attract newcomers to join the industry  
Under the second strategy  
the last sixth item is highlighted  
In recent years  
the HA has been developing the technology  
to report safety incidents through the internet  
We have a lot of mobile apps  
We attach great importance to the accuracy  
and efficiency in reporting site incidents and accidents  
It is anticipated that starting from August 2018  
mobile phones will be used to gain access  
to the internet for reporting safety incidents  
By the end of 2018, other mobile apps will also  
be launched to enhance site safety

Regarding the third strategy  
relating to the fostering of a safety culture  
through research, training, and promotion  
we will highlight the following four measures  
What is the first measure?  
Prefabrication of public housing is well known  
We adopted prefabrication for many years  
the percentage of prefabrication in the construction  
of public housing continues to increase  
We have been exploring to further  
increase the use of prefabricated components  
What are these?  
They include the use of precast structural walls  
precast lift shafts and modular housing construction  
to reduce works at height

and improve housekeeping on sites

This is the first measure

The second is to align with the global trend  
and the development direction of the Government

We visited Singapore in 2017

to study their modular

integrated construction technology

to improve productivity and site safety

We have already started related technical studies

in collaboration with contractors

Third, we continue to promote the application

of building information modeling

in the simulation of construction processes

to identify hazards, implement measures

to eliminate or reduce risks and

apply on site safety training, so as to

let the project team master the safe working practices

The last one is to cultivate safety awareness

Everyone should agree that it is very important

We will continue to hold safety seminars

update our safety website

and issue safety and health alerts

Please do visit our website

for safety alerts

to raise frontline workers' vigilance of hazards

encourage contractors to participate in

occupational safety and health competitions

through the Pay for Safety Scheme

and organize site safety award schemes to encourage

our teams to enhance site safety and health

Finally comes to the basic

we should show the frontline workers

and their families that we care about their wellbeing

The construction programme of the HA's project is tight

Safety always comes first  
even when we have deadlines to meet  
We shall never compromise  
when lives are at stake  
Please bear in mind that  
“Caring from the Heart. Safety Habits at Ease.”  
Here I would like to call upon all stakeholders  
of the industry to take further steps  
to reduce the risks faced by workers  
to enhance site safety  
Lastly, I hope that workers in various sectors  
can go to work with a happy mind  
and go home safely to see their families  
Thank you

Thank you for watching

(15:12)