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# **Housing Authority Safety Auditing System version 1.3**

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Occupational Safety and Health Council**



## **Outline**

- 1. Background of HASAS version 1.3**
- 2. Audit Performance of HASAS version 1.2 vs 1.3**
- 3. High Risk Parts Performance of HASAS version 1.2 vs 1.3**
- 4. On-site Observations**
- 5. The way forward**





# Background

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## **Housing Authority Safety Auditing Scheme (HASAS)**

- **Consists of 2 parts with totally 14 elements**

- Part A : Elements 1-13 (Establishment of SMS)
- Part B : Element 14 (Implementation of SMS)
- Satisfactory Result ( Both Part A & B  $\geq 70\%$  )

- **1996 HASAS version 1.0**
- **1 Apr 1998 HASAS version 1.1**
- **1 Jan 2003 HASAS version 1.2**
- **1 Mar 2007 HASAS version 1.3**



# HASAS version 1.3

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- Objectives of the change from version 1.2 to 1.3:
  - drive higher safety performance
  - motivate contractors for continuous improvement
- In addition to a well developed and established SMS, *emphasis is placed on its actual implementation* on site, i.e. physical performance





# Increase Weighting of Implementation Aspects

## Version 1.2

- **Part A** (Establishment of SMS) : **6 marks** on all items (except Ele. 12)
- **Part B** (Implementation of SMS) : **3 marks** on all items
- Procedural: Physical Implementation scores broadly **40% : 60%**

## Version 1.3

- Emphasize on **implementation aspects** for both parts
- **Reduce weighting of procedural items** on Part A
- Introduce **critical items with heavier weighting**
- Procedural: Physical Implementation scores broadly **25% : 75%**



# Score Banding for Payment

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## Previous Payment Method:

- 100% payment for HASAS scores Part A & Part B  $\geq$  70%

## Payment Method with Score Banding:

1. Scores  $< 70\%$  for Part A or Part B or both, no payment
2. Scores  $\geq 70\%$  but less than 80% for either part, 70% payment only for the safety audit item
3. Scores  $\geq 80\%$  for both parts, full payment for the safety audit item





## Adjust weighting of items under **PART A**

- Reduce weighting of **procedural items** from **6 to 3 marks**
- Weighting of items in **physical performance** aspects to remain at **6 marks**



# Adjust weighting of items under **PART B**

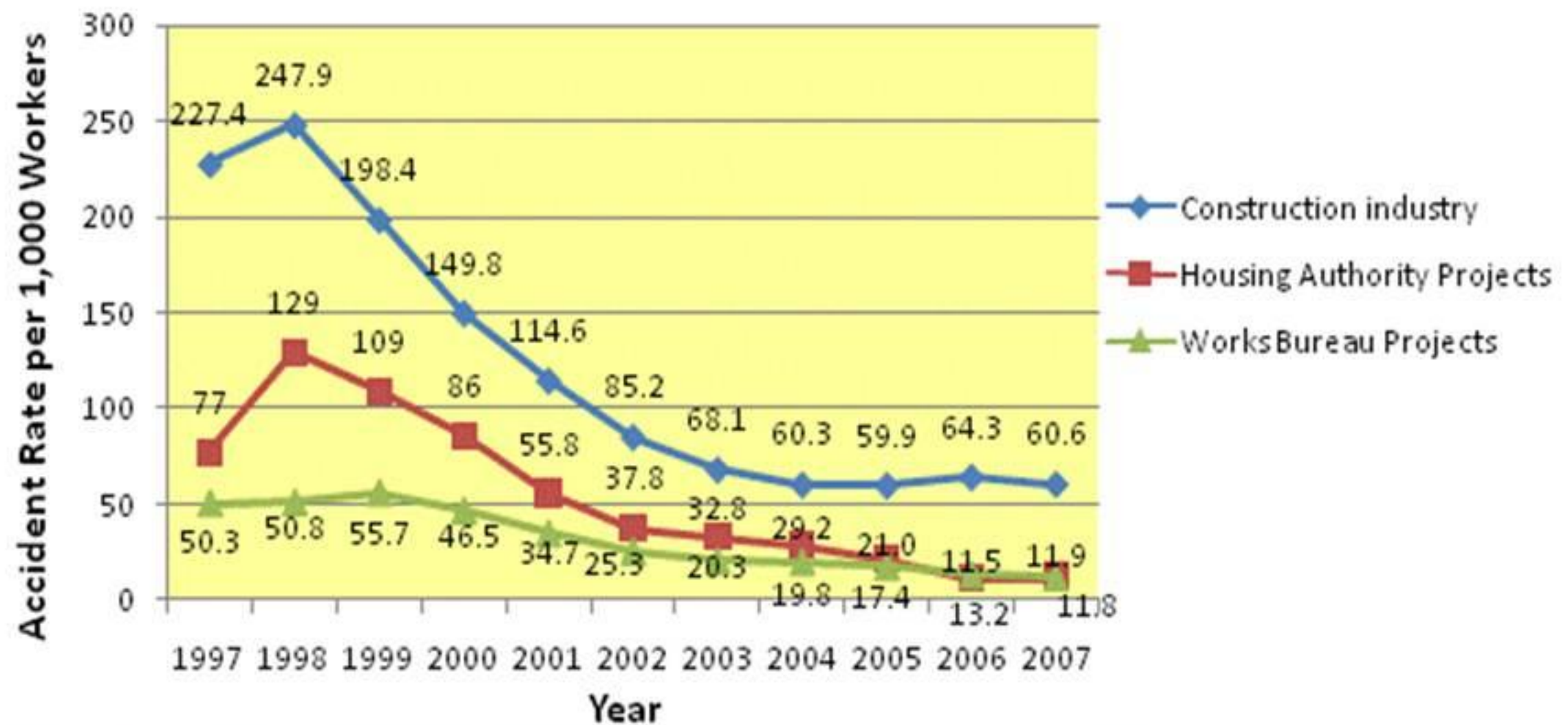
## Items of:

- 1. Guidelines and Procedures** remain **3 marks**
- 2. Implementation Aspects** increase **from 3 to 6 marks**
- 3. High Risk/Incidence Rate** up by two folds **from 3 marks to 9 marks; i.e.**
  - *Working at height (14.1.3)*
  - *Protection against falling objects (14.1.5)*
  - *Lifting operations (14.3.3)*
  - *Housekeeping (14.1.4)*
  - *Question of electric cables laying on ground (Q14.5.3.2)*





Comparison of Accident Rates for Public Projects and  
the Entire Construction Industry per 1,000 Workers (1997 – 2007)





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## *Performance of HASAS Audit Results*

*Average Audit Score*

*HASAS Version 1.2 v.s. Version 1.3*

*1 April 2006 – 31 March 2008*





# Performance of Audit Results

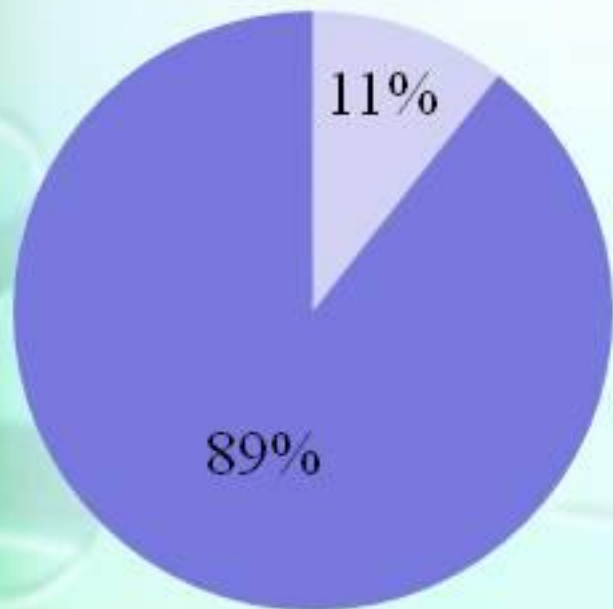
**1 April 2006 - 31 March 2008**

**Average Audit Score**

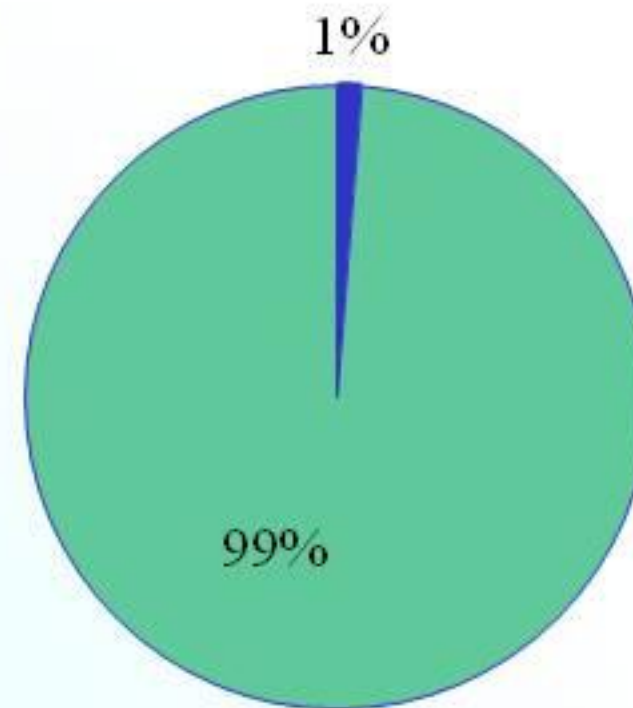
**Projects involved = 22**

**V1.2 = 85 audits V1.3 = 79 audits**

## Part A



■ V1.2 ( $<70$ ) ■ V1.2 (70-79) ■ V1.2 ( $\geq 80$ )



■ V1.3 ( $<70$ ) ■ V1.3 (70-79) ■ V1.3 ( $\geq 80$ )



# Performance of Audit Results

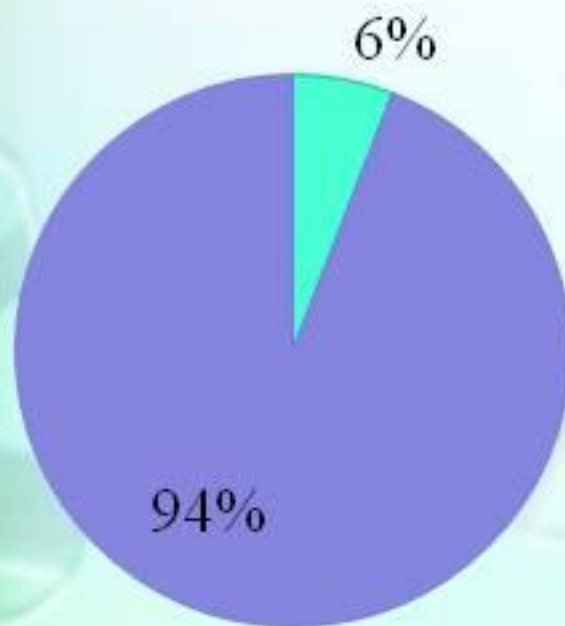
**1 April 2006 - 31 March 2008**

**Average Audit Score**

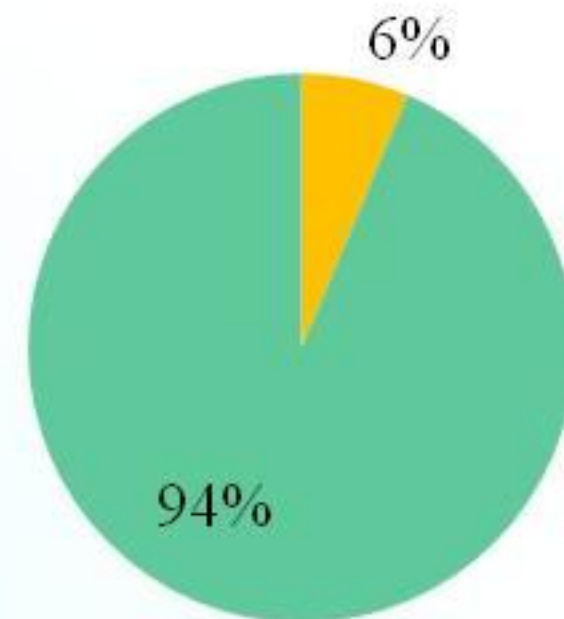
**Projects involved = 22**

**V1.2 = 85 audits V1.3 = 79 audits**

## Part B



■ V1.2 ( $<70$ ) ■ V1.2 (70-79) ■ V1.2 ( $\geq 80$ )



■ V1.3 ( $<70$ ) ■ V1.3 (70-79) ■ V1.3 ( $\geq 80$ )





# *Performance HASAS Audit Results*

*Average Audit Score for High Risk Parts*

*HASAS Version 1.2 v.s. Version 1.3*

*1 April 2006 – 31 March 2008*

*Part 14.1.3 Working at Height*

*Part 14.1.4 Housekeeping*

*Part 14.1.5 Protection against Falling Objects*

*Part 14.3.3 Lifting Operations*

*Question 14.5.3.2 Avoid electric cables unduly laid on floor?*

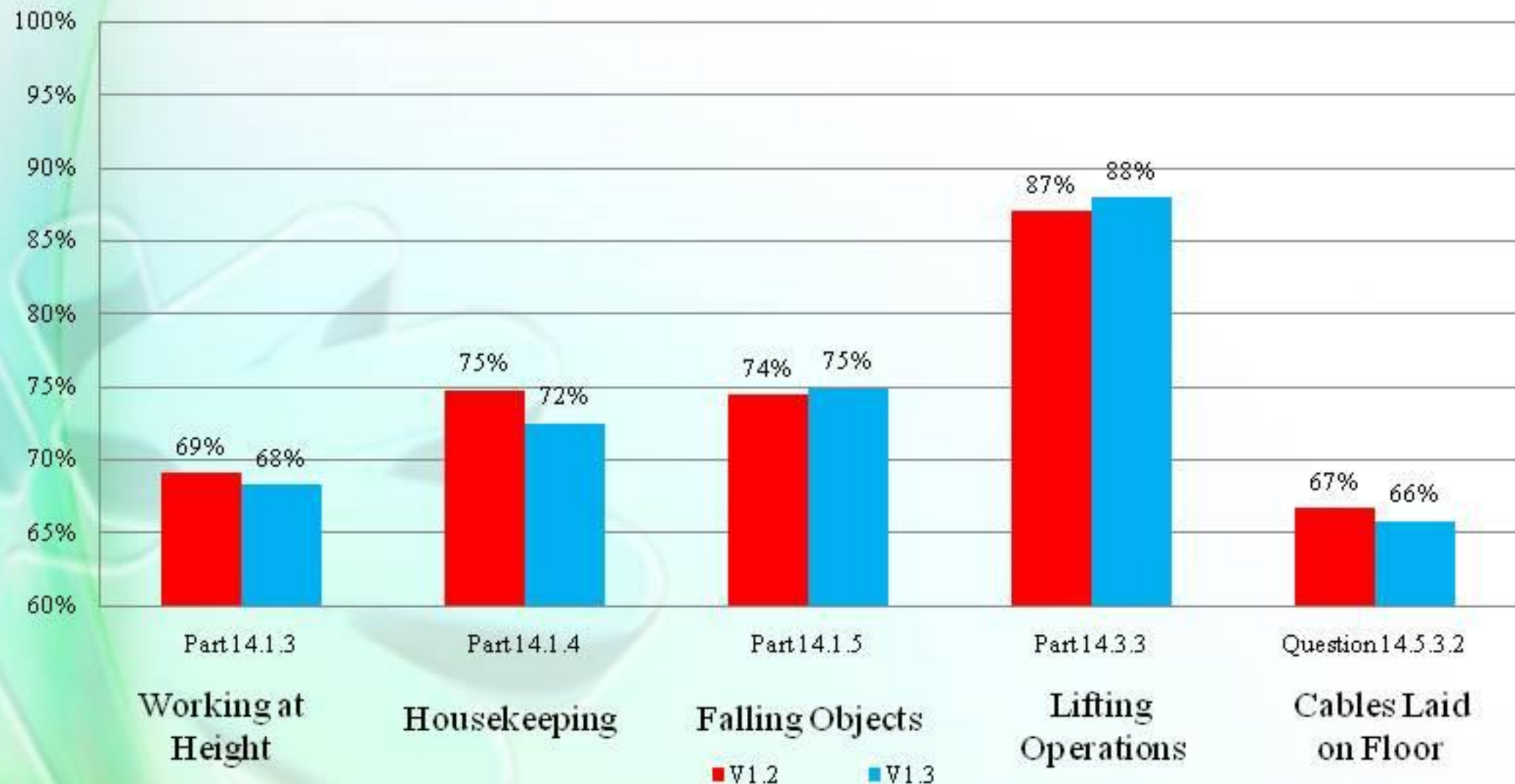


# Performance of High Risk Parts

1 April 2006 - 31 March 2008

Projects involved = 22

V1.2 = 85 audits V1.3 = 79 audits







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## **On-site Observations**





# High Risk Activities Working at Height

## Implementation Question

Q14.1.3.3 Has every worker been provided with a safe place of work such as provision of proper working platforms or if not practicable, the use of the fall-arresting system etc. for all activities? **(3 marks to 9 marks)**







# Working at Height







## Access and egress







## High Risk Activities

### Protection against Falling Objects

#### Implementation Question

Q14.1.5.5 Are all working platforms and floor edges provided with toe-boards to prevent materials from falling from height? **(3 marks to 9 marks)**







## High Risk Activities Housekeeping

### Implementation Question

Q14.1.4.5 Are materials and equipment stored and stacked safely? **(3 marks to 9 marks)**











## High Risk Activities

### Electric cable lying on ground

#### Question 14.5.3.2

Are electric cables adequately suspend/installled to avoid them from being unduly laid on floor? **(3 marks to 9 marks)**







## High Risk Activities

### Lifting Operation (Section 14.3.3)

#### Implementation Question

Q14.3.3.5

Are all lifting plant and associated lifting gear suitable for the lifting operations and carried out safely?

**(3 marks to 9 marks)**







# Improper wrapping of loose material. Damaged webbing slings

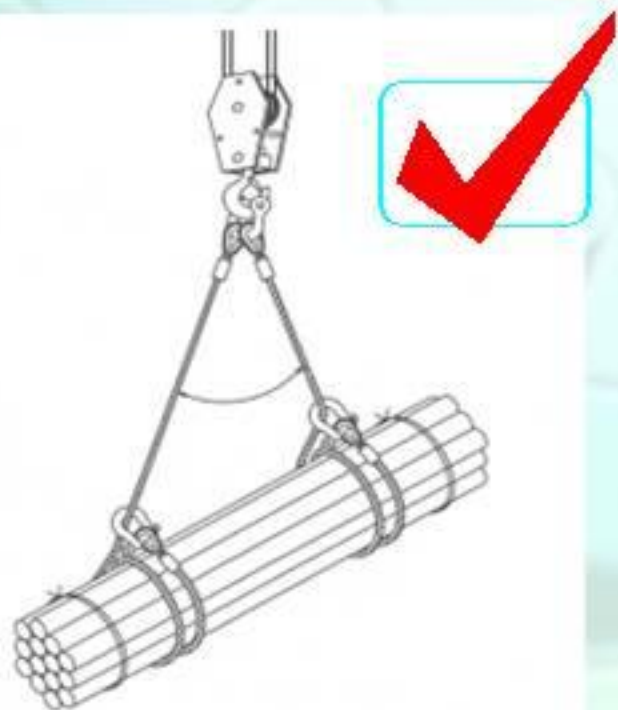


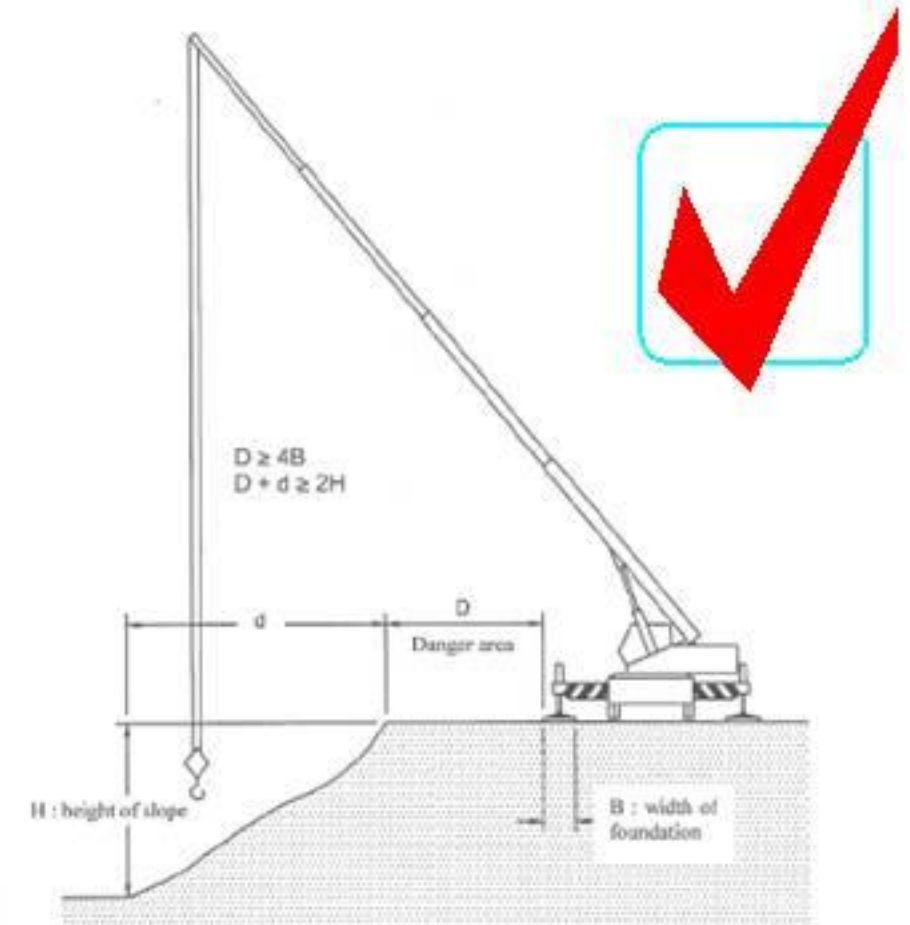
圖 16 兩條單支腳吊索以  
雙細扼索結法使用







Mobile cranes were found sitting too close to the edges of soil excavation

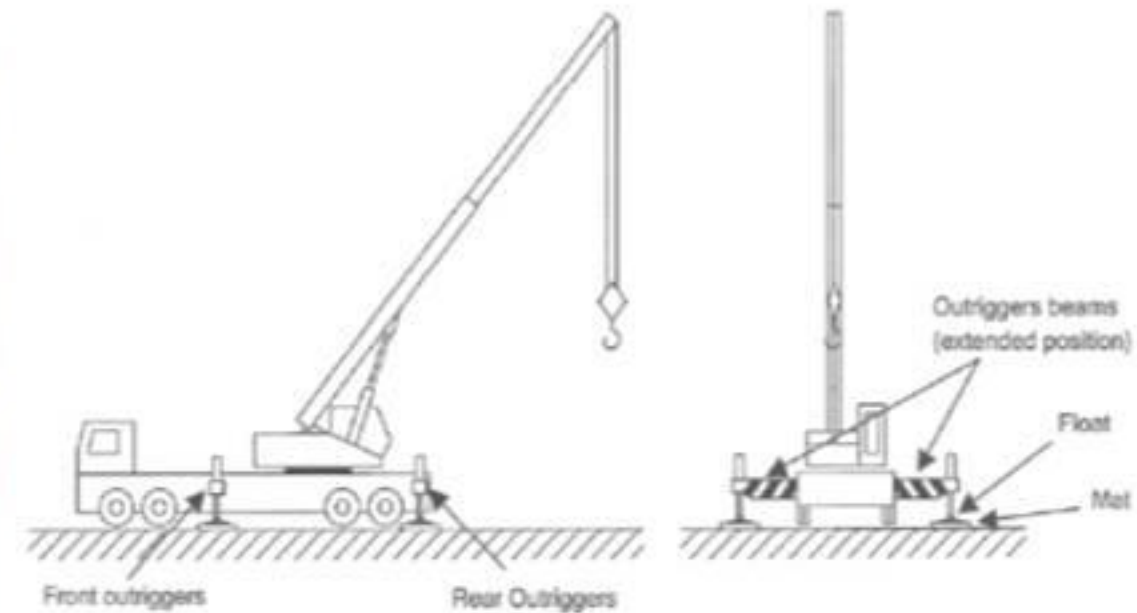


A safety distance at least 4 times the width of the foundation (the mat or timber blocking of the outrigger or the crawler) should be maintained between the foundation and the edge. (Paragraph 9.2.10 of Code of Practice for Safe Use of Mobile Cranes)





5 June 08



The mat or timber blocking should be at least 3 times larger in area than the float (unless a smaller area is specified by the manufacturer) and completely support the float. For timber blocking, it should be tightly spaced and level to guarantee a right angle (90 degrees) between the cylinder and the float of the outrigger. **(Paragraph 9.2.7 of Code of Practice for Safe Use of Mobile Cranes)**







# Material Hoist



**Material hoistway not fully covered**



**Unlocked material hoist gate when not in use**



# Good Practice







## **Provision of safety net for prevention against falling object**





**Welding in designated location with  
screen & exhaust**



**Low voltage welding  
machine**







## Double Lifting Chains

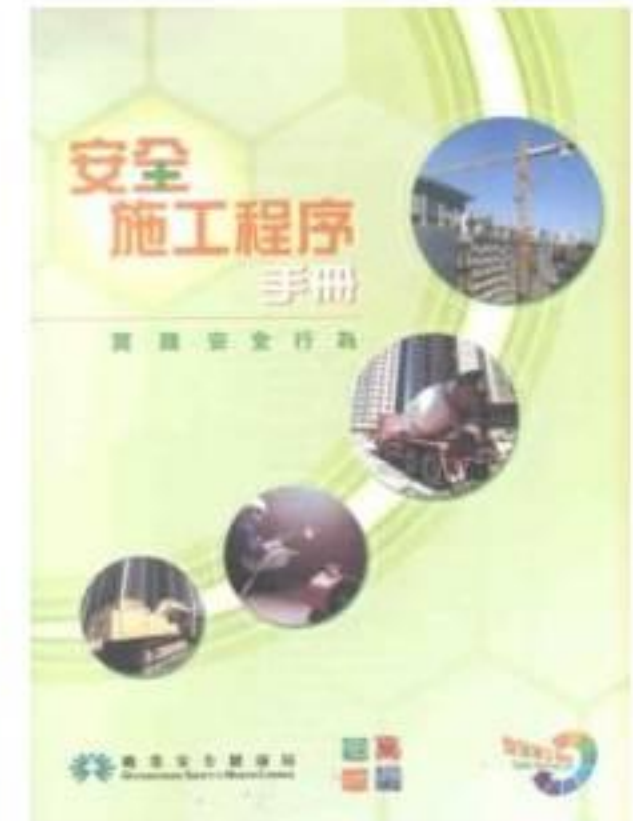
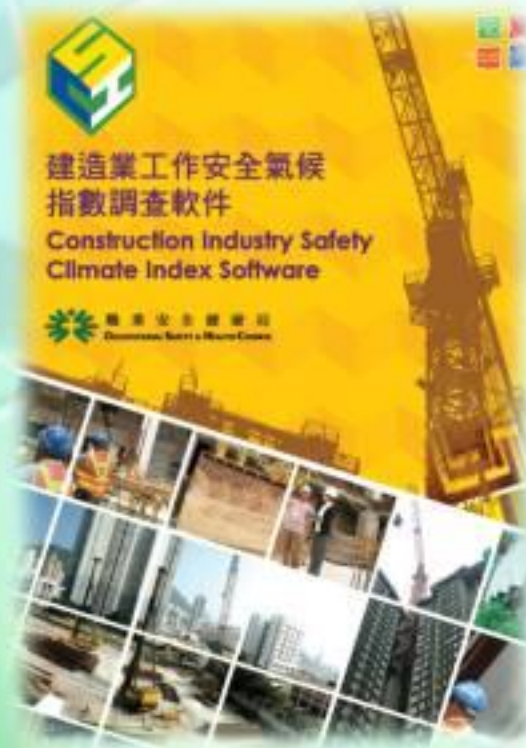






# The Way Forward

- Safe Working Cycle
- Safety Culture
  - Behaviour Safety
  - Safety Climate







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