Overview

- Safety Performance of Construction Industry
- Bad Practices
- Case Studies
- Learning Points
Fatal Injuries in Construction Industry

Fatal Injuries*

- 2012: Singapore 56, Construction 26
- 2013: Singapore 59, Construction 33
- 2014: Singapore 54, Construction 27

*Excluding work related traffic accidents

Decrease in Fatal Injuries (Con) in 2014 compared to 2013: 18%
Decrease in FFH Fatal Injuries (Con) in 2014 compared to 2013
Safety Performance of Singapore

Number of Fatal Injuries*

- **2012**: 42 (14 FFH, 28 Others)
- **2013**: 45 (14 FFH, 31 Others)
- **2014**: 44 (10 FFH, 34 Others)

*Excluding work related traffic accidents
In 2014, Construction Fatality Rate Improved but remains the highest

Fewer killed at work, but it's still ‘too high’

Record low fatality rate, but let's bring it down to zero: Minister

BY AM CHEONG YAN

WORKPLACE deaths fell from 73 in 2005 to 60 last year, dropping by 17.8 per cent from the previous year. This is still not “too high a number”, Manpower Minister Tan Chuan-Jin said yesterday at the annual Workplace conference organised by the Workplace Safety and Health (WSH) Council.

Mr Tan said it reflects a trend of falling workplace fatalities. But they also include workplace-related traffic accidents, noted as the cause for the first time. Amendments to regulations in incident reporting require companies to report all workplace-related traffic accidents, and this was done last year, said the WSH Council.

For example, firms have to report to the industry advisory statement (IAS) when their employees have an accident on the road or when a truck driver takes him/herself to an accident scene.

Yesterday, Mr Tan also touched on the challenges of helping small and medium-sized enterprises (SMEs) improve their workplace safety management. The council cited a 2011 WSH study that found that 60 per cent of SMEs had insufficient expertise in workplace safety, and 50 per cent had ineffective safety practices.

To help SMEs, the WSH Council yesterday launched a revised code of practice on risk management, which includes tips on how to keep employees safe.

Mr Siew Cheng Ho, president of the Singapore Institute of Safety Officers, which trains safety officers, said: "We must continue to adopt risk assessment practices and workplace safety measures to build the culture of workplace safety and health in our workplaces."

Meanwhile, a foreign worker died on Wednesday, plunging the total number of workplace accidents last year to 270 from 274 in 2013 and making it the lowest since 2005.

Last year, major reported injuries fell to 873 from 940 in 2013 and minor cases went up to 32,863 from 8,131.
Construction Fatality Rate Remains the Highest Among all the Sectors in 2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Construction</th>
<th>Marine</th>
<th>Manufacturing</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>5.51</td>
<td>9.42</td>
<td>3.11</td>
<td>0.96</td>
</tr>
<tr>
<td>2012</td>
<td>5.94</td>
<td>5.64</td>
<td>2.80</td>
<td>0.68</td>
</tr>
<tr>
<td>2013</td>
<td>7.16</td>
<td>2.73</td>
<td>1.63</td>
<td>1.58</td>
</tr>
<tr>
<td>2014</td>
<td>5.50</td>
<td>3.75</td>
<td>1.40</td>
<td>0.99</td>
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</tbody>
</table>

Include work-related traffic accidents.
Construction Industry Accounts for the Significant Share of the Fatal Injuries

Percentage of Workplace Fatal Injuries

- **Others**
- **Wholesale & Retail Trade**
- **Transportation & Storage**
- **Manufacturing**
- **Marine**
- **Construction**

Include work-related traffic accidents

<table>
<thead>
<tr>
<th>Year</th>
<th>Others</th>
<th>Wholesale &amp; Retail Trade</th>
<th>Transportation &amp; Storage</th>
<th>Manufacturing</th>
<th>Marine</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>10%</td>
<td>16%</td>
<td>21%</td>
<td>36%</td>
<td>16%</td>
<td>46%</td>
</tr>
<tr>
<td>2012</td>
<td>9%</td>
<td>13%</td>
<td>21%</td>
<td>46%</td>
<td>11%</td>
<td>46%</td>
</tr>
<tr>
<td>2013</td>
<td>21%</td>
<td>15%</td>
<td>10%</td>
<td>47%</td>
<td>4%</td>
<td>47%</td>
</tr>
<tr>
<td>2014</td>
<td>12%</td>
<td>20%</td>
<td>10%</td>
<td>45%</td>
<td>7%</td>
<td>45%</td>
</tr>
</tbody>
</table>
Main Issues for Issuance of SWO

- Scaffolds
- Open Sides
- Access & Egress
- Formwork Activities
- Material Storage & Housekeeping
Description of Accident

- On the day of accident, the Deceased was assisting two co-workers to dismantle the timber formwork at the 2nd storey internal lift shaft core-wall.
- They were standing on a work platform of a scaffold erected within the lift core-wall.
- In the process, the Deceased was believed to have fallen through a gap between the edge of the work platform and the lift core-wall.
- The Deceased landed inside the lift pit and was pronounced dead by attending paramedics.
Case Study

Initial position of the Deceased

Formwork being dismantled

Deceased could have fallen from either openings

600mm

600mm
Common Contraventions
Description of Accident

• The Deceased and 5 other co-workers were installing the steel reinforcement bars (rebars) for a roof reinforced concrete (RC) beam of a 2-storey detached house.

• This RC beam was located at an edge of the roof. The Deceased while handling one end of a rebar tripped and fell over the edge of the roof platform and landed on the ground about 9.8m down.

• The Deceased was conveyed by the ambulance to the National University Hospital where he succumbed to his injuries.
Case Study

Deceased was working on the rebars

- 200mm gap
- 450mm diagonal gap
Access & Egress
Access & Egress
Common Contraventions

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Access & Egress

Common Contraventions
Learning Points

- Costs of accidents & poor WSH management
- Tangible vs. non-tangible
Learning Points

General statistics

- List of Contractors with Demerit Points
- List of Companies under Business Under Surveillance (BUS) Programme
- List of Factories and Work-sites Issued with Stop Work Orders
- List of Offenders Convicted under WSHA - 2015
- List of Offenders Convicted under WSHA - 2014
- List of Offenders Convicted under WSHA - 2013
- List of Offenders Convicted under WSHA - 2012
- List of Offenders Convicted under WSHA - 2011
- List of Offenders Convicted under WSHA - 2010
- List of Offenders Convicted under WSHA - 2009
Demerit Points System

• Issued to main or sub-contractors for breaches under WSHA and relevant subsidiary legislations

• Single stage DPS where DP is issued based on severity of offences committed
## Demerit Points System

<table>
<thead>
<tr>
<th>Type of Incident</th>
<th>Number of Demerit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composition fines</td>
<td>1 DP per fine, from the 4th fine onwards</td>
</tr>
<tr>
<td>Stop Work Order (Partial)</td>
<td>5</td>
</tr>
<tr>
<td>Stop Work Order (Full)</td>
<td>10</td>
</tr>
<tr>
<td>Prosecution action taken for accident that led to serious injuries to any person</td>
<td>18</td>
</tr>
<tr>
<td>Prosecution action taken for dangerous occurrence (potential for multiple fatalities)</td>
<td>18</td>
</tr>
<tr>
<td>Prosecution action taken for accident that led to death of one person</td>
<td>25</td>
</tr>
<tr>
<td>Prosecution action taken for accident that led to death of more than one person</td>
<td>50</td>
</tr>
</tbody>
</table>

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# Demerit Points System

<table>
<thead>
<tr>
<th>Phase</th>
<th>Demerit Points accumulated within 18-month period</th>
<th>Allowed to hire new workers</th>
<th>Allowed to renew existing workers</th>
<th>Duration of debarment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25 to 49</td>
<td>No</td>
<td>Yes</td>
<td>3 months</td>
</tr>
<tr>
<td>2</td>
<td>50 to 74</td>
<td>No</td>
<td>Yes</td>
<td>6 months</td>
</tr>
<tr>
<td>3</td>
<td>75 to 99</td>
<td>No</td>
<td>Yes</td>
<td>1 year</td>
</tr>
<tr>
<td>4</td>
<td>100 to 124</td>
<td>No</td>
<td>Yes</td>
<td>2 years</td>
</tr>
<tr>
<td>5</td>
<td>125 and above</td>
<td>No</td>
<td>No</td>
<td>2 years</td>
</tr>
</tbody>
</table>
Business Under Surveillance (BUS) Programme

- Helps poor performing companies to improve their WSH performance

- Potential BUS “passengers”:
  - Had fatal accidents
  - Demonstrated poor WSH mgmt such as SWO
  - Accumulated DP

- Expects frequent inspections
# IMPACTS TO BUSINESS DUE TO ACCIDENTS & POOR WSH MGMT

<table>
<thead>
<tr>
<th>Tangible</th>
<th>Non-Tangible</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Time</td>
<td>• Reputation</td>
</tr>
<tr>
<td>• Manpower</td>
<td>• Business opportunities</td>
</tr>
<tr>
<td>• Close monitoring</td>
<td>• Profitability</td>
</tr>
</tbody>
</table>
Accidents do not affect the injured alone....

It affects the loved ones too

And also the organisation
Thank You for your attention