Total Workplace Safety and Health (Total WSH) for Crane Operators

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Work, Safety, & Health Are **Inter-Related**

Crane Operator: Without Total WSH

- **SAFETY**
  - Accidents
  - Possible safety lapses

- **WORK**
  - Prolonged Working Hours
  - Safety lapses cause economic and reputation losses to the company
  - Could result in safety lapses
  - Accidents could result in fractured leg

- **HEALTH**
  - Fatigue
  - Fractured leg

- Mr Ong needs to go on long MCs, affecting his productivity
- Mr Ong does not have adequate rest
- Mr Ong may have problems at work due to his fractured leg even though it has healed

**Fatigue: insufficient rest will affect cognitive performance**
Work, Safety, & Health Are *Inter-Related*

Crane Operator: With Total WSH

- **Increased safety culture brings economic and reputation gains to the company**

- **Work has safety measures in place**

- **Proper scheduling of crane operations reduces likelihood of fatigue**

- **Fatigue management programmes help improve Mr. Ong’s job performance, hence his productivity is not affected**

- **Strong safety habits reinforce strong discipline**

- **Safer workplace**

- **Minimise Injuries**

- **Mr. Ong has sufficient rest and the likelihood of safety lapses due to fatigue is decreased**

- **Healthier lifestyle**

**WORK**

**SAFETY**

**HEALTH**
Healthy Workforce, Safe Workplace
Total Workplace Safety and Health (Total WSH) approach

Looking at work, safety and health together

WORK
Good Work Processes

so as to achieve workers’ well-being

SAFETY
Workplace Accidents Prevented

HEALTH
Healthy Worker

Healthier workforce, Safer workplaces
Fewer injuries, better health

Increase productivity
Reduce accidents at work
Reduce absenteeism
Reduce ill-health at work
Improving health improves safety

Good physical condition, absence of chronic illness, and good mental health are the factors that have been scientifically observed to be associated with low occupational injury rates.¹⁻³

Workers with certain adverse health risk factors are more likely to sustain injuries than those without such risks. Among these factors are obesity, sleep deprivation, having poorly controlled diabetes, being a smoker, abusing drugs and/or alcohol, or being impaired by certain prescription medications.¹,⁴,⁵

Identifying medical conditions that impact safety has been proven effective in lowering accidents among commercial drivers.⁶,⁷

Key to success
Code of Practice on WSH Risk Management


Year of issue: 2011
First Revision: 2012
Second Revision: 2015
Build upon the present Risk Assessment

Identify health hazards which may affect various stakeholders

Assessing the level of risk

Implement the control measures

Communicate revised Risk Assessment to all employees
<table>
<thead>
<tr>
<th>Vocation</th>
<th>Key Activities</th>
<th>Hazard</th>
<th>Possible injury / ill-health</th>
<th>Severity</th>
<th>Likelihood</th>
<th>Risk level</th>
<th>Possible Risk Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crane Operator</td>
<td>Climbing up &amp; down the tower crane</td>
<td>- Falling off tower crane while climbing</td>
<td>- Injuries from fall, possibly death</td>
<td>5 (Catastro)</td>
<td>2 (Remote)</td>
<td>10 (Med)</td>
<td>Provide lifts for crane operators</td>
</tr>
<tr>
<td></td>
<td>Lifting of heavy load using crane</td>
<td></td>
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</table>

**Risk Assessment & Control Measures**

- **Fitness to work assessment at baseline**
- **Wearables to monitor lone worker at periodic intervals**
- **Fatigue Management**
- **Ensure Lifting Plans, Safe Work Procedure (SWP) are strictly adhered to**
How will Total WSH help?

- **Assessment**
  - Phase 1
  - Diagnosis

- **Intervention Programmes**
  - Phase 2
  - Treatment

- **Monitoring & Evaluation**
  - Phase 3
  - Follow up
Total WSH A-I-ME Framework

Addressing both safety and health risks together will translate to the following:

- **Phase 1**: Assessment
  - A healthy workforce for safe workplaces

- **Phase 2**: Intervention Programmes
  - More productive workforce and better business performance
  - Fewer injuries, better health

- **Phase 3**: Monitoring & Evaluation
  - Lower absenteeism rates and healthcare costs

Typically takes 1 year
What does the Total WSH journey involve?

1. Identify top risks & recommend practical interventions
   - **Company level**
     - **WSH Questionnaire**
       - Safety and HR officers fill in 1 set for the whole company
     - **Walk-through Assessment**
   - **Worker level**
     - **Basic Health Survey**
       - Invite all staff to be surveyed (target at least 75%)

2. Implement interventions
   - **Examples**
     - Health Screening (Pre and Post) & Follow-up Regular Health Coaching
     - Ergonomics Assessment & Intervention Sessions
     - Broad-based Health Promotion Activities
     - Recommendation of risk control measures

3. Monitor and evaluate effectiveness of programme
   - **Examples**
     - Impact on MC days & healthcare costs
     - Impact on productivity
     - Return on Prevention

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**Assessment** ~1-2 months

**Intervention** ~10-11 months (including Monitoring & Evaluation)**
In some ways, a crane operator’s job is similar to that of a bus captain’s.
Case Study: Workplace Health & Safety Programme for Bus Captains

Healthier Workers, Happier Workers
健康员工, 快乐员工
3 Steps To Better Health 健康生活三步曲

✓ Right Siting ✓ Right Timing ✓ Relevant and customised programmes

**Work-related components:** Following a Workplace Health Risk Assessment conducted by occupational health specialists, an ergonomics intervention programme was introduced.

- Bus captains were taught practical skills on making appropriate adjustments within the bus cabin to reduce possible musculoskeletal problems.
- Sunglasses were provided to help them manage glare while on the road.
- Videos and posters on driving ergonomics were also incorporated into companies’ training and orientation sessions to emphasise the importance of ergonomics and safety.

**Age-related components:** Bus captains learnt to manage their chronic diseases through adopting healthy lifestyle practices. For example, they were taught to identify and choose healthier options when eating out and at home. Canteen operators, under the management of the National Transport Workers’ Union (NTWU) also started to serve healthier food at bus depots and interchanges. This made healthier eating an easy option for bus captains.
Case Study: Workplace Health & Safety Programme for Bus Captains

✓ **Right Siting**

Conducting the programme at unconventional sites – container offices, bus interchanges & depots

✓ **Right Timing**

Working around operational constraints:
Health Screening at 4am, Tapping on short windows of opportunity of 15-30mins for regular health coaching
Case Study: Workplace Health & Safety Programme for Bus Captains

✓ Relevant and customised programmes

Age-related
- Chronic Disease Management
- Hearing
- Vision

Work-related
- Driving Ergonomics
- Fatigue Management & sleep
- Workplace Health Risk Assessment
- Stress & mental wellbeing
- Hydration
- Glare

Adjust the steering wheel angle so that your shoulders are relaxed.
Case Study: Workplace Health & Safety Programme for Bus Captains

Significant improvements within 1 year

50% saw at least 1 improvement
in their health conditions (i.e. blood pressure, blood glucose and blood cholesterol) by post health screening.

1 in 4 improved from ‘Abnormal’
to ‘Normal’
health status in all aspects of their health.

Body Mass Index (BMI)
12% of those with moderate/high BMI (> 23) improved
their BMI to the next better category. Of these, 36%
have now achieved healthy BMIs (< 23)
How will Total WSH benefit me as a worker?

• When I am healthy, I am less likely to hurt myself and others
• I am healthy and can be productive at work. I contribute to a healthy workforce and safe workplace.
How will Total WSH benefit me as a worker?

• When I am safe and I look after my health, I can continue to be healthy and work for as long as I want to. My health will not affect my work and I will enjoy life better.

• I can feedback to my supervisor on unsafe practices and suggest improvements.
What can I do?

1) Use correct Work Procedures
   • Use checklists / Risk Assessment

2) Follow safety rules
   • Wear Personal Protective Equipment (PPE) at all times
   • Report any unsafe conditions/ hazards/ near-misses

3) Take responsibility for your of personal health
   • Go for regular health screening
   • Manage medical conditions well
   • Report to supervisor if you feel unwell
Interested to embark on Total WSH?

Have a chat with us outside

For more resources and useful information, please visit www.wshc.sg/totalwsh or email us at totalwsh@wshc.sg