Workplace Traffic Management
With an illustrious history dating more than 40 years ago, Bok Seng Logistics has grown from strength to strength from its earliest business in heavy equipment and transportation.

Today, Bok Seng Logistics is united in driving towards one focused vision of Moving the World - delivering a wide-spanning range of logistics services for both sea and land.

From intermodal transportation, warehousing to handling of large-scale complex logistics projects, Bok Seng Logistics provides a comprehensive offering unlike any other in the region.
On-site Traffic Management and Solutions
Importance of Workplace Traffic Management

Workplace Traffic Management is an integral part of the operations for Bok Seng Logistics as we strongly believe that a sound Workplace Traffic Management Plan will minimise or eliminate all possibilities of damage to Vehicle and Properties damage, serious injury or even fatalities in workplace and in public areas.

Bok Seng Management had recognised the importance of Workplace Traffic Management and Workplace Safety and Health personnel had prepared plan and endorsed by Senior Management. Below are the plans that had been established and carry out:

- **Study and analyse** the current workplace traffic management in Bok Seng premises.
- **Carry out the risk assessment** on all workplace traffic, transport activities as well as lifting activities by all types of vehicles used. Examples of vehicles involved container trucking, crane lifting, fantuzzi lifter for containers, forklift operations etc.
- **Establish the traffic management measures** to minimise the potential risks and hazard.
- **Evaluate the effectiveness** of the measures that had been established.
Recognises common Activities in Bok Seng premises

- Placing containers onto chassis
- Lifting cargo onto lorry crane
- Container shifting
- Transport cargoes onto lorry crane
- Crane lifting for offloading of heavy cargoes
Implementation of the traffic Management in Bok Seng

Clear Demarcation on the road is utmost important as it provide the drivers a clear direction to prevent any possibility of confusion which may lead driver’s wrong assumption.

“SLOW” indication had been placed at area where there are possibility of blind spot or turning

Plan View

Pedestrian walkway
No parking of Vehicle at zigzag line
Designated zebra crossing for Pedestrian
Implementation of the traffic Management in Bok Seng

Humps will be erected when any mitigated area which may endanger people or properties
Basic Traffic Rules and Regulations

Display clear and concise signage to all drivers who will be entering Bok Seng premises.

Only authorised transport vehicles and personnel are allowed to enter Bok Seng Premises.

Cones as barricade are to put up with signage barricade when any lifting operation is been carry out.

Convex mirror to be erected to eliminate possible blind spots.

Ensure signage for show pedestrian to walk at designated walk path.
Other implementation to have good Workplace Traffic Management

- Proper demarcation of parking area for heavy vehicles
- Steel beams are constructed to prevent hitting the wall as it is above the ground level.
- Keep pedestrians out of path of transport vehicles and steel beams been erected to prevent the drivers from moving back further which may seriously injure the pedestrians.
Technologies that Assist our Workplace Traffic Management
Traffic Management Technologies implemented in Bok Seng

Mobileye Technology

As drivers spend majority of their time on road and therefore road safety becomes one of important Safety Key Factor among them. Factually, all drivers knows the basic of safe driving but external factors such as attitudes, goals, and priorities have unknowingly influence them from driving safely. Therefore organisations plays an important role in enhancing methods and ways to eliminate or reduce the external influences to the lowest.

Bok Seng is one of the organisations who adopted Mobileye Technology which exemplifies commitment to improve road safety in Singapore for all drivers on road.
Traffic Management Technologies implemented in Bok Seng

Mobileye Technology

Mobileye Technology had given a wide range of detection which could help to correct driver’s driving habit to ensure safe driving. Some of the features as shown below:

**Lane Departure Warning**
Mobileye detects lane markings on the road and alerts the driver when they unintentionally veer out of their lane, mitigating the risk of forward collision.

**Forward Collision Warning**
Mobileye detects vehicles on the road and alert the driver when in danger of a rear-end collision with the vehicle in front.

**Pedestrian and Cyclists Detection**
Mobileye detects pedestrians and cyclists on the road and alerts the driver when in danger of collision, mitigating the risks.

**Headway Monitoring Warning**
Mobileye calculates the distance, in seconds, between your vehicle and the vehicle in front of you and alerts you when you get too close, mitigating the risk of collision.

**Speed Limit Indication**
Mobileye detects traffic signs and provides you with the actual speed limit stated on the road, making sure you are always aware.
Traffic Management Technologies implemented in Bok Seng

Mobileye Technology

“Driver Driving Behaviour Report” had been generated to understand the driver’s behaviour and counselling if necessary. It had shown improvement

- Pedestrian Cyclist Warning: 16.7% Improvement
- Lane Departure Warning: 27.2% Improvement
- Speeding: 80% Improvement
Traffic Management Technologies implemented in Bok Seng

Fatigue Management Technology

Bok Seng had collaborated with WSH Council on the trial implementation on the Fatigue Management Technology, which named as “GUARDIANS”

Equipment installed on vehicles

System provides:
- **Real time intervention** against micro-sleeps and distraction triggered by the In-Cab Sensor
- Forward facing camera assists in **capturing and recording** crucial external information should incident occur
- **Real-time 24/7 support** implementation of fatigue intervention plans
## Traffic Management Technologies implemented in Bok Seng

### Fatigue Management Technology (WEB INTERFACE REPORT)

#### Fleet console

Data current to Friday, 25 July 2014 10:48 AM +8.00

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<th>Software version</th>
<th>Last contact</th>
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**Traffic Management Technologies implemented in Bok Seng**

**Fatigue Management Technology (WEB INTERFACE REPORT)**

![Alert console](image-url)

Showing events between 18/07/2014 and 25/07/2014 10:49 AM +8.00

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<th>Type of event</th>
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</table>
Traffic Management Technologies implemented in Bok Seng

Fatigue Management Technology (WEB INTERFACE REPORT)
Traffic Management Technologies implemented in Bok Seng

Fatigue Management Technology (Fatigue Alert)

Intervention Programme:

When any of the drivers is facing fatigue on the road, the appointed person by the organisation will be notified through phone call as alert so that he could call back to the driver and asking about his condition.

The Fatigue report will be generated and send to related parties in the organisation to either perform counsel and show to the drivers.
Traffic Management Technologies implemented in Bok Seng

Fatigue Management Technology (ASSESSMENT REPORT)

“Fleet Fatigue Assessment Report” had been generated to understand the drivers condition when they are performing their job.

Bok Seng – Assessment Report
14, January 2017 to 03, April 2017

“Still on Trial Period”
Traffic Management Technologies implemented in Bok Seng

Fatigue Management Technology (ASSESSMENT REPORT)

From 14th January to 22nd March 2017, 10 vehicles in the fleet had been monitored to detect the baseline levels of dangerous driving. 10 vehicles for trial involve prime movers, lorry cranes and mobile crane. Alarms were fitted to the trucks, but not activated.

Results:
• 3 fatigue events where drivers closed eyes for 1.5 seconds or longer
• 3 notifiable events where drivers has closed eyes for a reason other than fatigue or distracted that does not meet the distraction thresholds
• 467 Distraction events where driving while looking away

From 23rd March to 10th April 2017, the driver alert system had been activated. The In-cab alarms and seat vibrators were triggered, prompting drivers to stay awake and pay attention while driving. The activation of alerts corrects both driving behaviour patterns over time and reduces the immediate risk of accidents

Results:
• 33% reduction in total fatigues
• 57.2% reduction in driving while distracted
• 87% reduction in holding device events from 24 cases to 3 cases
Other practices which assisted on Workplace Traffic Management
Other practices which assisted Workplace Traffic Management

Safety department had developed 4 main safety Induction Training Materials for all new employees. The new employees will be injected with right safety knowledge base on the job requirement.

**Basic Coverage:**
- QHS Policy and Objectives
- Basic inhouse safety rules covers:-
  - Pedestrian walkway
  - PPE Zone in Bok Seng Yard
- Duties of person at work (WSH Act)
- Accident Prevention
- Housekeeping
- Emergency Response Plan

**Detailed Coverage base on job function:**
- Knowledge of basic Road Traffic Act
- Driver Improvement Point System
- Workplace Traffic Management for Bok Seng Yard
- Safe Work Procedure for transportation, traffic and Fatigue Management
- Safety knowledge on lashing and Securing cargoes, twist lock etc
- Sharing of organisation and external case studies
Other practices which assisted Workplace Traffic Management

Safety Education and Campaign

We strongly believe the proactive safety education training as well as safety campaign are able to raise more awareness to all the employees of Bok Seng.

Above : Refresher training for drivers to re-calibrate all driver’s mindset as well as consultation session

Right : Quarterly safety meeting with drivers and managers with consultation

Campaign was held once a year for all employees
Other practices which assisted Workplace Traffic Management

Bok Seng believes that they are able to better serve their customers by building a strong safety culture within their company. In their effort to build and sustain a safety-centric culture, annual appreciation awards are given out to drivers with commendable safety records (i.e. zero accidents for the past year).
Thank You
for your kind attention.

Contact Us

Bok Seng Logistics Pte Ltd
5 Tuas Avenue 3, BS Logistics Hub,
Singapore(639405)
Tel: (+65) 6416 1999
Fax: (+65) 6861 0325
Email: info@bokseng-ipl.com