

## Vehicle Inspection Checklist A

---

### Inspection Checklist for bulk transportation Prime mover and trailer (bulk tank, ISO tank) Road tanker (single entity lorry)

\* Transport of petroleum and flammable materials in bulk means transport of petroleum and flammable materials in container more than 250 litres water capacity

<b>(A)</b>	<b>Documents Requirements</b>
1	Manufacturer's report (new application)
2	A copy of tanker photos (including licence plate)
3	A copy of tanker drawing endorsed by PE (new application)
4	Hydrostatic test or any equivalent test report (once every 5 years) endorse by local PE
5	Radiographic test or any equivalent test report (once every 10 years) endorse by local PE
6	Test certificate issued by LTA ( road worthiness)
7	Letter approval of Transport Emergency Response Plan
8	Hazardous Materials Transport Driver Permit
<b>(B)</b>	<b>Technical Requirements</b>
1	Exhaust system in order
2	Fire shield at rear of cabin provided & in order
3	Battery cut off
4	Discharge faucets
5	Emergency cut off for tanker
6	Transport Emergency Information Panel (TEIP) according to Singapore Standard 586 shall be displayed at the back and both sides of the vehicle
7	Warning sign " Danger, Highly Flammable" according to Petroleum & Flammable Material Regulations shall be displayed at the back of the vehicle
8	Bumper ( heavy duty steel) 15 cm from tank
9	Earthing strap touching the ground
10	Metal conduits for all wirings in good condition
11	Manhole covers in order
12	Coaming satisfactory and projected at least 25 mm above manhole covers
13	Pressure , level & temperature gauges provided
14	Safety & hydrostatic relief valves provided
15	Proper battery compartment
16	Vehicle is equipped with one 9 kg dry powder fire extinguisher and <ul style="list-style-type: none"> <li>i) 1 x 1 kg dry chemical fire extinguisher , or</li> <li>ii) 1 x 2.3 kg dry carbon dioxide fire extinguisher</li> </ul>

## Vehicle Inspection Checklist B

---

### Inspection Checklist for package transportation Prime mover and trailer (trucking container containing petroleum or Flammable materials in package, examples drums, bottles, pallets etc)

\* Transport of petroleum and flammable materials in package means transport of any petroleum or any flammable materials in one or more containers of less than 250 litres water capacity

<b>(A)</b>	<b>Documents Requirements</b>
1	Test certificate issued by LTA (road worthiness)
2	A copy of prime mover / trailer photos (including licence plate)
3	Hazardous Materials Transport Driver Permit
4	Letter approval of Transport Emergency Response Plan
<b>(B)</b>	<b>Technical Requirements</b>
1	Exhaust pipe directed downwards and adequate shrouding (metal cover) to be provided
2	Fire shield at rear of cabin provided & in order
3	Battery cut off
4	Earthing strap touching the ground
5	Warning placard according to Singapore Standard 586 shall be displayed at the back and both sides of the vehicle
6	Warning sign “ Danger, Highly Flammable” according to Petroleum & Flammable Material Regulations shall be displayed at the back of the vehicle
7	Earthing strap touching the ground
8	Metal conduits for all wirings in good condition
9	Proper battery compartment
10	Vehicle is equipped with one 9 kg dry powder fire extinguisher and <ul style="list-style-type: none"> <li>i) 1 x 1 kg dry chemical fire extinguisher , or</li> <li>ii) 1 x 2.3 kg dry carbon dioxide fire extinguisher</li> </ul>

## Vehicle Inspection Checklist C

---

### Inspection Checklist for package transportation Vehicles constructed to carry goods (e.g. lorries, pick-ups )

\* Transport of petroleum and flammable materials in package means transport of any petroleum or any flammable materials in one or more containers of less than 250 litres water capacity

\* Vehicles use for transport of flammable gases must not have a roof covering.

<b>(A)</b>	<b>Documents Requirements</b>
1	Letter approval of Transport Emergency Response Plan
2	Test certificate issued by LTA (road worthiness)
3	A copy of lorry / pick-up photos (including licence plate)
4	Hazardous Materials Transport Driver Permit
5	Supplier's authorization letter ( for LPG dealers only )
<b>(B)</b>	<b>Technical Requirements</b>
1	Platform of the vehicle is lined with timber or is timber constructed so as to minimize contact between the metal parts of the platform and any container
2	Protective railings lining the platform of the vehicle are at least 1 m in height in order to secure any container and to prevent such container from falling off the vehicle when the vehicle is in motion
3	Glass at the back of the driver cabin, if any is of wired glass or toughened or safety of not less than 6 mm in thickness so as to act as a fire resisting shield
4	Battery is covered with appropriate insulation material to prevent electrical spark emanating there from igniting any flammable vapour from any container
5	Exhaust pipe is extended at least 150 mm outwards away from the vehicle tail box or is directed downward to keep vehicle exhaust away from any container
6	Warning placard according to Singapore Standard 586 shall be displayed at the front, both sides and the back of the vehicle
7	Warning sign " Danger, Highly Flammable " according to Petroleum & Flammable Material Regulations shall be displayed at the back of the vehicle
8	Vehicle is equipped with one 9 kg dry powder fire extinguisher and <ul style="list-style-type: none"> <li>i) 1 x 1 kg dry chemical fire extinguisher , or</li> <li>ii) 1 x 2.3 kg dry carbon dioxide fire extinguisher</li> </ul>

## Vehicle Inspection Checklist D

---

### Inspection Checklist for package transportation Vehicles (e.g. Van or box up vehicle)

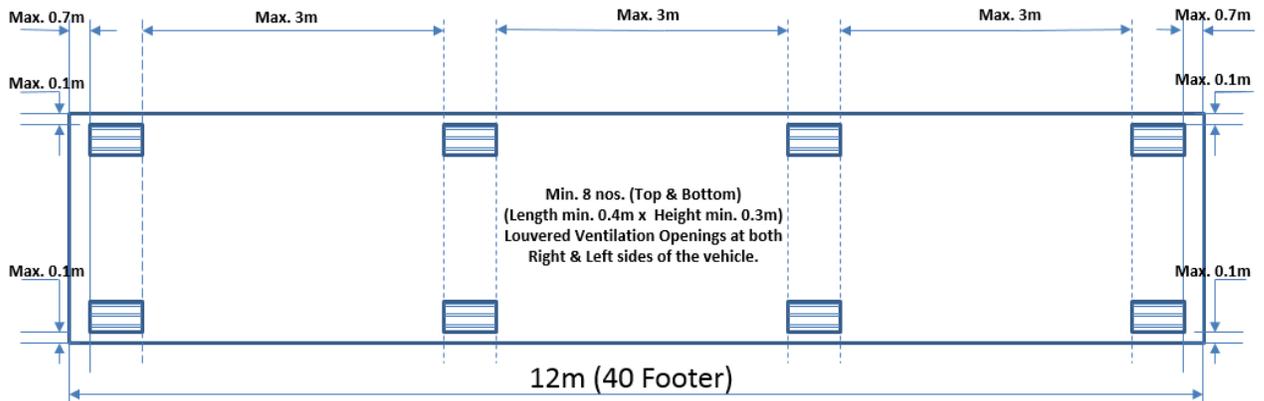
\* Transport of petroleum and flammable materials in package means transport of any petroleum or any flammable materials in one or more containers of less than 250 litres water capacity

<b>(A)</b>	<b>Documents Requirements</b>
1	Letter approval of Transport Emergency Response Plan
2	Test certificate issued by LTA (road worthiness)
3	A copy of van / box up vehicle photos (including licence plate)
4	Hazardous Materials Transport Driver Permit
<b>(B)</b>	<b>Technical Requirements</b>
1	*Adequate ventilation shall be provided on top and bottom ( louvers) and exhaust fan according to Petroleum & Flammable Material Regulations
2	Platform of the vehicle is lined with timber or is timber constructed so as to minimize contact between the metal parts of the platform and any container
3	Battery is covered with appropriate insulation material to prevent electrical spark emanating there form igniting any flammable vapour from any container
4	Exhaust pipe is extended at least 150 mm outwards away from the vehicle tail box or is directed downward to keep vehicle exhaust away from any container
5	Warning placard according to Singapore Standard 586 shall be displayed at the front, both sides and the back of the vehicle
6	Warning sign “ Danger, Highly flammable “ according to Singapore Standard 586 shall be displayed at the back of the vehicle
7	Vehicle is equipped with one 9 kg dry powder fire extinguisher and <ul style="list-style-type: none"> <li>i) 1 x 1 kg dry chemical fire extinguisher , or</li> <li>ii) 1 x 2.3 kg dry carbon dioxide fire extinguisher</li> </ul>

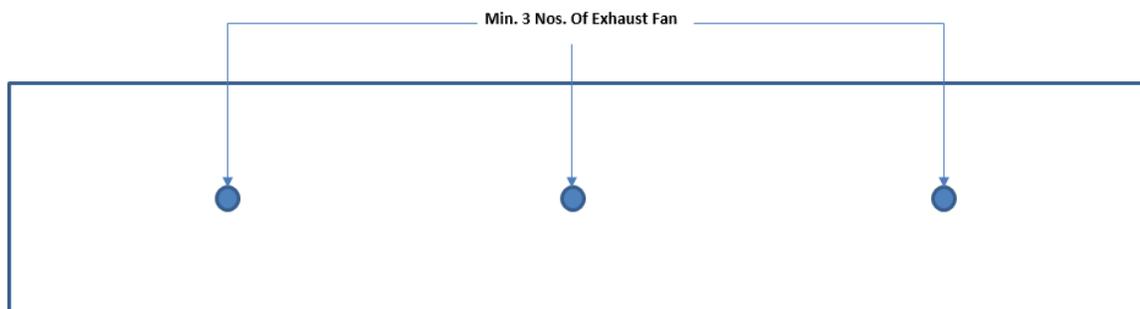
## Inspection Checklist for package transportation Vehicles (e.g. van or box up vehicle)

Apart from the opening on top behind the driver's cabin, please see our requirement:

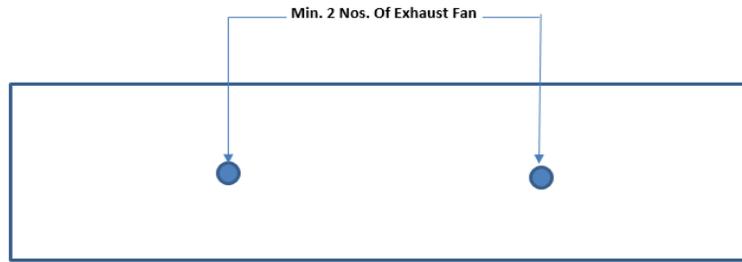
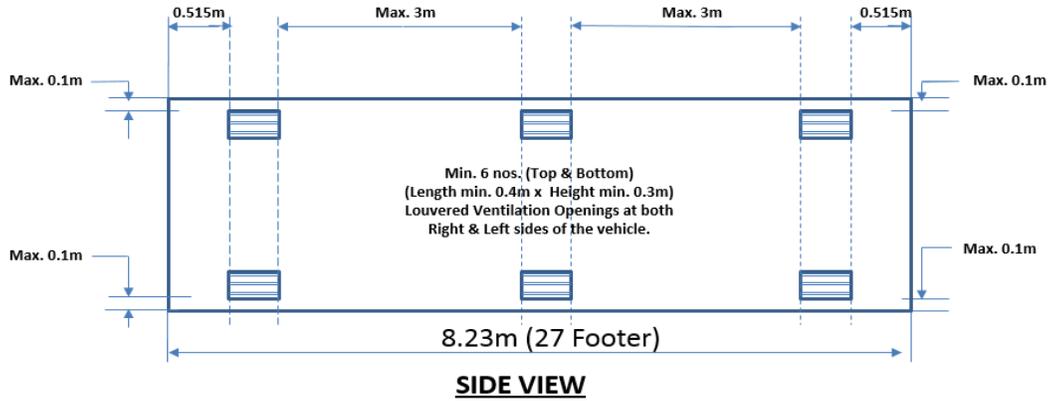
- 1 Only Class 3 FM Liquid/Petroleum & Class 4 Solid are permitted to be transported in a box-up/enclosed vehicle with:
  - Adequate ventilation shall be provided as to prevent the accumulation of any flammable vapours in the vehicle.
  - Spacing between ventilation louvers (top and bottom) shall not exceed 3m horizontally.
  
- 2 Class O petroleum or any FM GAS Class 2 gas flammable material is not permitted to be transported in a box-up vehicle or vehicle with roof covering whether permanent or otherwise.



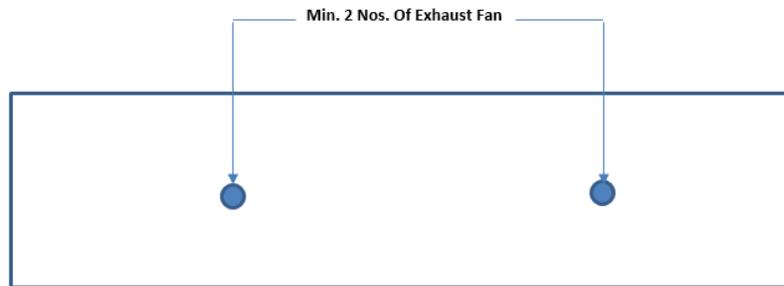
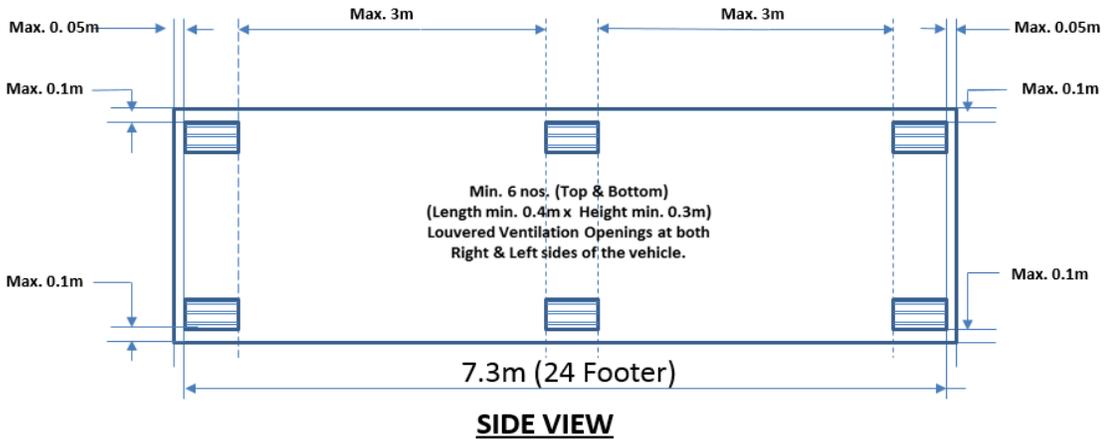
**SIDE VIEW**



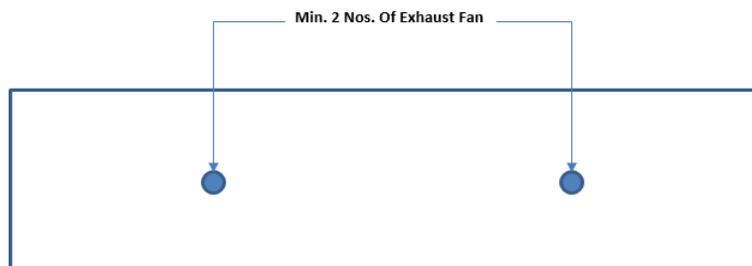
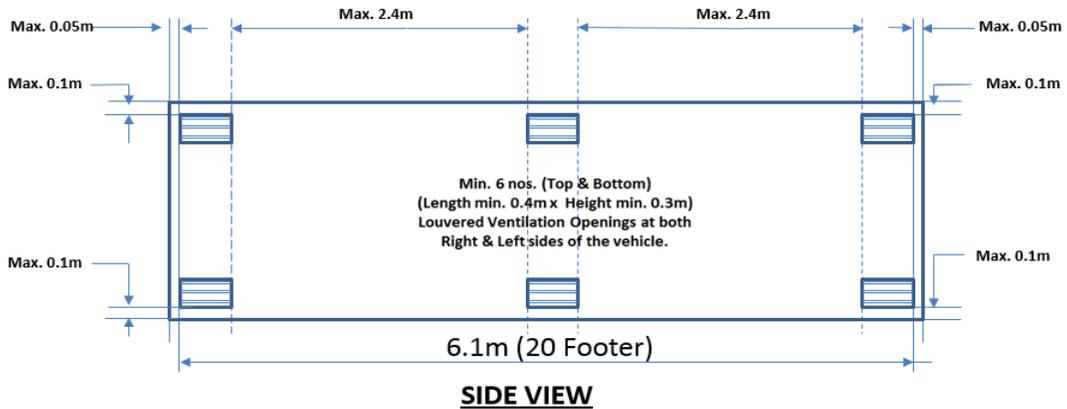
**TOP VIEW**



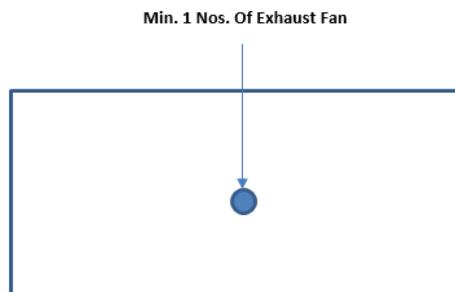
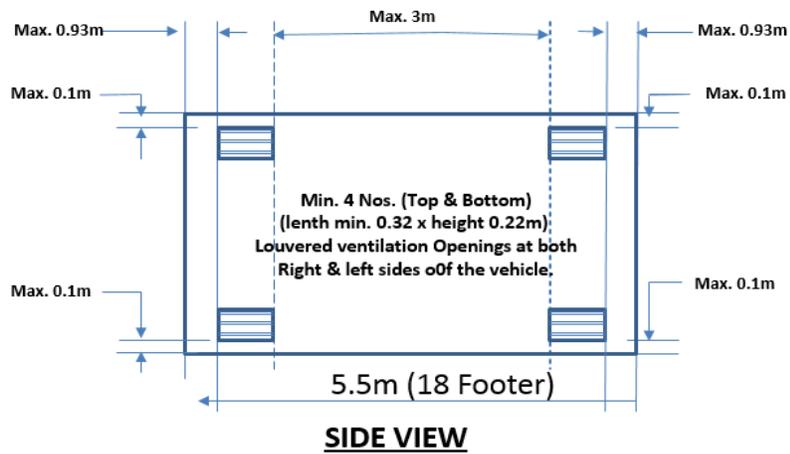
**TOP VIEW**



**TOP VIEW**

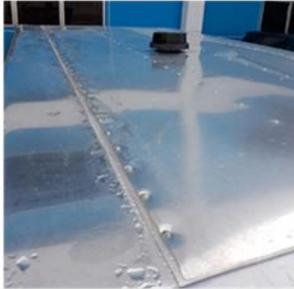


**TOP VIEW**

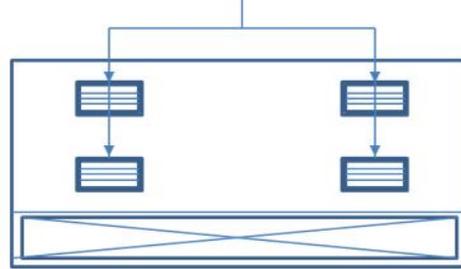


**TOP VIEW**

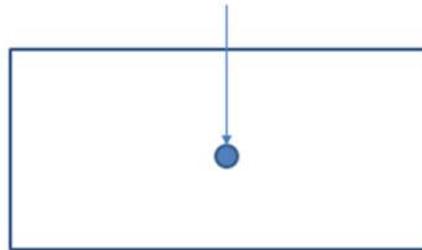
# ENCLOSED/BOX-UP VEHICLE FOR SMALL LORRY



Min. 4 NOS. (Top & Bottom)  
(lenth min. 0.32 x height 0.22m)  
Louvered ventilation Openings at both  
Right & left sides.



Min. 1 Nos. Of Exhaust Fan



**TOP VIEW**

**Vehicle Inspection Checklist E**  
**Inspection Checklist for LNG transportation**  
**Vehicles (e.g. Prime Mover, Trailer and Road Tanker)**

<b>(A)</b>	<b>Documents Requirements</b>
1	Manufacturer's data report (eg. ASME U-Stamp, EN code, etc... )
2	A copy of tanker drawing endorsed by PE
3	A copy of tanker technical calculations for stability endorsed by PE (New Tank)
4	Letter approval of Transport Emergency Response Plan
5	Test certificate issued by LTA (road worthiness)
6	A copy of prime mover / trailer photos (including licence plate)
7	Hazardous Materials Transport Driver Permit
8	Hydrostatic test or any equivalent test report endorse by local PE (New Tank)
9	Radiographic test or any equivalent test report endorse by local PE(New Tank)
10	Pneumatic or equivalent test report for tank and manifold piping system (working pressure) endorsed by PE (once every 5 years )
<b>(B)</b>	<b>Technical Requirements</b>
1	Prime Mover/ Road Tanker equipped with ABS system
2	Fire shield at rear of cabin provided and in order
3	Roll Over Prevention Stability System provided
4	Exhaust system in order (adequately shielded from direct contact with fuel from overfilled tanks and leaks )
5	Rear and side under-run protection ( heavy duty steel ) 15 cm from tank
6	Metal conduits for all electrical wirings in good condition
7	Anti-Tow Interlocks systems ( to prevent driving away while connected to driving rack or during dispensing ) in order
8	Battery cut off in order / Proper battery compartment
9	2 x 9 kg dry powder and 1 x 1 kg dry powder / 2.5 kg CO2 fire extinguishers
10	Transport Emergency Information panel (TEIP) complying with GHS (Warning notices) provided at 3 sides
11	Earth winch shall be provided for operating during load and unloading of LNG
12	Spark arrestor ( Flame Trap) provided
13	Earthing strap provided and touching the ground
14	Visual Inspection on Outer Vessel / Tank (eg. to inspect for any sign on sweating, cold spots or algae)
15	All vent pipe nozzles are piped upwards and are not piped downwards to the chassis (LNG Trailer/ ISO Tanker)
16	Discharge Faucets in order
17	Lighting in cabinets shall be Vapor Proof design or explosion proof design (Intrinsically safe)
18	Cabinet enclosure shall be designed with louvers
19	Wiring circuit shall be house in steel conduits
20	All valves and Safety pressure relief valves in working order
21	Pressure and Level gauges in working order
22	Vacuum reading in working order ( < 20 micron )
23	Emergency cut off device in working order
24	Pump, Vaporizer and piping yearly maintenance report (Renew)

S/no	Inspection Bodies approved to carry inspection on vehicles base on above checklist / approved agent for installation of tracking device, horns and blinkers, orange vehicle number plate	Checklist A	Checklist B	Checklist C	Checklist D	Checklist E	Installation of Tracking Device etc
1	<p><b>ABS Consulting</b></p> <p>Alexandra point 438 Alexandra Road #09-01, Singapore 119958 Tel 62708663, Fax 62709987</p>	yes	yes	-	-	yes	-
2	<p><b>Bureau Veritas</b></p> <p>1 Maritime Square #09-66 Lobby C HarbourFront Centre Singapore 099253 Tel 62752886, Fax 62752776</p>	yes	yes	-	-	yes	-
3	<p><b>JIC Inspection Services Pte Ltd</b></p> <p>i) 53 Pioneer Road Singapore 628505 Tel 68639639, Fax 68631838</p> <p>ii) 21 Ang Mo Kio Singapore 569118 Tel 64847370, Fax 68487379</p>	yes	yes	yes	yes	-	-
4	<p><b>STA Inspection Pte Ltd</b></p> <p>i) 302 Sin Ming Road Singapore 575627 Tel 64521398, Fax 64538244</p> <p>ii) 249 Jalan Boon Lay Singapore 619523 Tel 6261 6178, Fax 64538244</p>	-	-	yes	yes	-	-

S/no	Inspection Bodies approved to carry inspection on vehicles base on above checklist / approved agent for installation of tracking device, horns and blinkers, orange vehicle number plate	Checklist A	Checklist B	Checklist C	Checklist D	Checklist E	Installation of Tracking Device etc
5	<p><b>VICOM LTD</b></p> <p>i) 385 Sin Ming Drive Singapore 575718 Tel 64584555, Fax 64581040</p> <p>ii) 511 Bukit Batok St 23 Singapore 659545 Tel 656771111, Fax 66654771</p> <p>iii) 501 Yishun Industrial Pk A Singapore 768732 Tel 67559028, Fax 67559905</p> <p>iv) 23 Kaki Bukit Ave 4 Singapore 415933 Tel 67495422, Fax 67440441</p> <p>v) 20 Changi North Crescent Singapore 499613 Tel 65454808, Fax 65430973</p>	-	yes	yes	yes	-	-
6	<p><b>Astrata (Asia Pacific) Pte Ltd</b></p> <p>Block 750E (Estuary Bldg) Chai Chee Road #05-02 Technopark @ Chai Chee Singapore 469005 Tel +65 63388133 Fax +65 63385373 <a href="http://www.astratagroup.com">www.astratagroup.com</a></p>	-	-	-	-	-	yes

## Explanatory notes

### Hazardous Materials Transport Driver Permit

Drivers need to attend course and obtain a Hazardous Materials Transport Driver Permit (HTDP). To register for the HTDP course, you can choose one of the following Institutions or accredited bodies.

S/N	NAME OF COMPANY
1	<p><b>PSA INSTITUTE, PSA CORPORATION LIMITED</b> MR SEAN HONG PSA VISTA, #03-02 20, HARBOUR DRIVE SINGAPORE 117612</p> <p>TEL : +65 6771 7307 / 7335 FAX : +65 6771 7316 EMAIL : seanhong@globalpsa.com</p>
2	<p><b>AAT TRAINING HUB PTE. LTD.</b> MS BEBE 54, MAUDE ROAD #02-05, TOWNSHEND BUILDING SINGAPORE 208346</p> <p>TEL : +65 6292 4804 FAX : +65 6293 4401 EMAIL: <a href="mailto:beb@aatraininghub.com">beb@aatraininghub.com</a></p>
3	<p><b>HAZMAT TRAINING</b> MS NG BEE HONG 146A. CHANGI ROAD SINGAPORE 419726</p> <p>TEL : +65 6542 5539 FAX : +65 6542 5296 H/P : +65 9675 5796 EMAIL : <a href="mailto:beehong@haz-mat-training.com">beehong@haz-mat-training.com</a></p>
4	<p><b>UBTS PTE LTD</b> MR HARRY TAN 12, PENJURU CRESCENT SINGAPORE 608975</p> <p>TEL : +65 6425 6787 FAX : +65 6569 3875 H/P : +65 9747 9922 EMAIL : <a href="mailto:training@ubts.com.sg">training@ubts.com.sg</a></p>

S/N	NAME OF COMPANY
5	<p><b>COSEM SAFETY AND SECURITY SERVICES PTE LTD</b>  MS HASLINA  37, GUL AVENUE  SINGAPORE 629677</p> <p>TEL : +65 6898 4171  FAX : +65 6898 2428  EMAIL : Haslina Rahman [ <a href="mailto:haslina@cosem.or.sg">haslina@cosem.or.sg</a> ]</p>
6	<p><b>BS TECHNOLOGY PTE LTD</b>  MR LEE JIA WEI  5, TUAS AVENUE 3,  BS LOGISTICS HUB  SINGAPORE 639405</p> <p>TEL : +65 6416 2495  FAX : +65 6863 1994  EMAIL : <a href="mailto:lee.jiawei@bokseng-ipl.com">lee.jiawei@bokseng-ipl.com</a></p>
7	<p><b>SKILLSHQ ACADEMY</b>  MR JOSEPH HONG  8 BOON LAY WAY,  #05-15 TRADEHUB 21  SINGAPORE 609964</p> <p>TEL : +65 6563 2176  HP : +65 8333 7118  EMAIL : <a href="mailto:info@skillshq.sg">info@skillshq.sg</a></p>
8	<p><b>ABSOLUTE KINETICS CONSULTANCY PTE LTD</b>  MS FELICITAS GONZALES  64, HILLVIEW TERRACE  SINGAPORE 669277</p> <p>TEL : +65 6690 2914  FAX : +65 6763 3885  EMAIL : <a href="mailto:fely.gonzales@sq-akc.com">fely.gonzales@sq-akc.com</a></p>
9	<p><b>AVANTA GLOBAL PTE LTD</b>  MR PREM KUMAR V  72, BENDEMEER ROAD  #03-29, LUZERNE  SINGAPORE 339941</p> <p>TEL : +65 6295 2112  EMAIL : <a href="mailto:prem@avanta.com.sg">prem@avanta.com.sg</a></p>

S/N	NAME OF COMPANY
10	<p><b>NOVEXX PTE LTD</b>  MR RYAN KWA SOON KENG  11, WOODLANDS CLOSE  #01-15  SINGAPORE 737853</p> <p>TEL : +65 6570 2283  FAX : +65 6570 2526  EMAIL : <a href="mailto:ryan.kwa@novexx.com.sg">ryan.kwa@novexx.com.sg</a></p>
11	<p><b>NTUC LEARNING HUB</b>  ZENNE ZURAINY BTE ZAHRI  18, BOON LAY WAY  #04-119, TRADEHUB21  SINGAPORE 609966</p> <p>TEL : +65 6795 3954  FAX : +65 6515 9150  EMAIL : <a href="mailto:zenne@ntuclearninghub.com">zenne@ntuclearninghub.com</a></p>

### **Transport Emergency Response Plan (TERP)**

Prior to the application of vehicle transport licence for petroleum and flammable materials, applicants will have to submit TERP on-line for approval via [www.scdf.gov.sg](http://www.scdf.gov.sg). For clarification on TERP, applicant can call SCDF Central Enforcement Department (Attn: SGT Azali at 68481440 or MAJ Steve Koa at 68481540)

### **Tracking Device**

PI note that vehicle transporting 3 metric tons (net wt) or more of petroleum or flammable materials or hydrogen, silane & CNG in tubes (regardless of quantity) will need to install with a tracking devices, immobilizer, horns and blinkers and an orange colour vehicle number plate. PI note that the 3 metric tons refer to 3000 kg or 3000 litres, in the nature physical state of the regulated chemical (i.e. the litres for petroleum and liquid FM; the kg for LPG, gaseous FM and solid FM. The vehicle owner can liaise with the agent directly for the installation of the tracking devices.

Vehicles installed with tracking devices are to adhere strictly to approved routes and transportation hours. For details, please visit SCDF website (look for the updated circular on requirements for transportation of Petroleum and flammable materials).

Foreign vehicles transporting 3 metric tons (net wt) or more of petroleum or flammable materials or hydrogen, silane & CNG in tubes (regardless of quantity) will also need to comply with the above requirements, otherwise the vehicle will be turned back at the checkpoint with effect from end March 08.

**For further details on transport of petroleum and flammable materials, please visit [www.scdf.gov.sg](http://www.scdf.gov.sg)**