#### **SOP FOR LOADING / UNLOADING OF VEG OIL FROM BARGES IN DOCKS**

The Oil operators shall explain following safe operating procedure to the LORRY tanker drivers and cleaners before commencement of the work through the Supervisors.

- 1. Material Safety Data Sheet (MSDS) of the product to be handled at site shall be available.
- 2. All the drivers of tankers shall be made <u>aware about hazardous properties</u> of Oil, if any.
- 3. Check all hoses for any leaks / wearing / damage to avoid spillage.
- 4. Observe no smoking; remove combustible material and <u>any source of ignition</u> from the site.
- 5. The vehicle should be secured with scotching of tires to <u>prevent its accidental movement</u>. Also apply Parking brakes of the vehicle
- 6. Vehicle should be in neutral gear when parked for loading /unloading opearation.
- 7. <u>Shut off the engine</u> and <u>remove ignition key</u> from the vehicle to avoid unauthorized starting of the vehicle.
- 8. Place <u>drip tray</u> below the connection point (manifold)
- 9. Place adequate fire extinguisher at the site, to tackle any fire incident. Supervisors at the site should be aware about operations of the extinguisher.
- 10. Adequate quantity of sawdust shall be available at site to absorb any spilled content and should be container available to put these spilled soaked saw dust in it, for safe disposal.
- 11. By-pass system shall be always be functional so that in case of accidental close of valve, it will not cause any pressure surge or burst.
- 12. The driver / cleaner who climbs up on the top of lorry tanker shall wear appropriate <u>PPE</u> i.e. safety helmet, mask/face shield and safety belt with life line (lanyard). Safety belt shall be used properly by securing lifeline to safeguard himself against fall from top of the tanker.
- 13. Before commencing, the operation of discharging bulk liquid cargo from barge / vessel through hosepipe the <u>hosepipe shall be firmly secured</u> by tying it to manhole structure of lorry tanker or by suitable means. No person shall keep on holding the hosepipe throughout the operation.
- 14. During operation, <u>no person shall remain close to man-hole</u> of tanker as sudden surge in pressure may flung the liquid from hose pipe or hose pipe and hit the person standing there-at resulting into serious accident. Ensure that bypass system is functional.
- 15. The level of liquid may be ascertained from other man-hole of tanker or from safe distance or <u>by level indicator</u> or by mirror or by any other suitable means.

- 16. <u>Proper communication</u> shall be established between tanker and vessel/barge crew. Only authorized person should indicate or signal clearly to barge/vessel crew to stop the pump in case of any emergency arise or over filling of tanker.
- 17. Untie the hose pipe from the manhole after the discharging stops completely. Then gradually drain the entire content remaining in the hose pipe into the tanker so that no content is spilled outside the manhole. Climb down safely from the top of lorry tanker.
- 18. All the operation shall be carried out under <u>supervision of experienced person</u> of concerned CHA or consignee, who is aware of all hazards involved in this operation.

Compiled by SMC

Date 13.07.2022

### SOP FOR LOADING / DISCHARGING OF FLAMMABLE LIQUID FROM BARGES

The Oil operators shall explain following safe operating procedure to the tanker drivers and cleaners before commencement of the work through the concerned Supervisors at site to prevent any untoward incident:

#### **BEFORE OPERATION**

- 1. Check all hoses for leaks / wearing to avoid spillage.
- 2. Observe no smoking and remove any source of ignition from the site.
- 3. The vehicle should be secured with scotching of tires to prevent its accidental movement. Also apply Parking brakes of the vehicle
- 4. Vehicle gear should be in neutral position.
- 5. Shut off the engine and remove ignition key from the vehicle to avoid unauthorized starting of the vehicle.
- 6. The driver/cleaner who climbs up on the motor lorry tanker shall wear appropriate PPE i.e. safety helmet, mask, face shield and safety belt with life line (lanyard). Safety belt shall be used properly by securing life line to safeguard himself against fall from top of the tanker.
- Before commencing the operation of discharging bulk liquid cargo from barge / vessel through hose pipe the hose pipe shall be firmly secured by tying it to manhole structure of lorry tanker or by suitable means.

- 8. Ensure that surge prevention or bypass system is properly functionaing.
- 9. Ensure proper bonding and grounding before connecting of hoses to the points
- 10.Ensure the driver and his cleaner are aware of hazards of flammable material and its preventive measures.
- 11.The Material Safety Data Sheet (MSDS) of the material being handled shall be readily available at the site.
- 12.All tankers should display Class label and the driver should have TREM Card.
- 13.Portable Fire Extinguisher- DCP / Foam / CO2 shall be kept in ready position in front of vehicle (driver's cabin) on road.
- 14. Use a drip tray under the valve to collect leakage from hoses
- 15.Saw dust or sand shall be kept ready to soak the leaked oil. Oil soaked sand or saw dust shall be collected and disposed of in controlled manner to avoid any fire risk.
- 16.No maintenance work or hot work shall be carried out during the operation.
- 17.Approved quality spark arrester should be provided on the engine exhaust. Muffler / silencer is properly bolted to avoid any leakage.
- 18. The battery terminals should have protective rubber covers.

### **DURING OPERATION**

Proper communication shall be established between tanker and vessel/barge crew.

- Only authorized person should indicate or signal clearly to barge/vessel crew to stop the pump, in case of any emergency arise or over filling of tanker.
- During operation, no person shall be close to man-hole of tanker as sudden surge in pressure may flung the liquid from hose pipe and hit the person standing there-at resulting into serious accident.
- 2. The level of liquid may be ascertained from other man-hole of tanker or from safe distance or by level indicator or by any suitable means.
- 3. Driver must stay alert near the vehicle during entire loading / discharging operation.
- 4. The operator at ship / barge shall also stay alert to control the operation.

# AFTER OPERATION

- After the discharging stops completely, then person should untie the hose pipe from the manhole. Then gradually drain the entire content remaining in the hose pipe into the tanker taking care that no content is spilled outside tanker or on ground. Then Close the manhole lid and climb down safely from the top of lorry tanker.
- 2. After unloading, all valves should be closed and check for leakage.
- 3. Disconnect the grounding / bonding wire.
- 4. Remove the wheel scotches / wedges.

## **IN CASE OF SPILLS:**

- 1. Remove all sources of ignition.
- 2. Do not start the vehicle.
- 3. Spill should be absorbed using absorbent, earth, sand or saw dust.
- 4. Sawdust if used shall be disposed of in controlled manner to avoid fire risk.
- 5. Use water spray in case of fire.

## **Recommendations Dy. Manager (Bunders)**

- 1. Provision of earth pit and arrangement for earthing.
- 2. Provision of adequate illumination at night / darkness.
- 3. Proper leveling of ground.
- 4. Installation of concrete stoppers at wharf end.

(Compiled by Safety Management Cell)