



#Driving Green Future

LNG

H₂

O & M

ABOUT US

Clean Green Fuel & Logistics Private Limited established in year 2022. Our mission is to create green and clean ecosystem by using green fuels like LNG & Hydrogen to reduce carbon footprints and to be a responsible partner for various industries for its ESG performance and sustainability. At CGF, we believe in the power of innovation to drive meaningful changes. As a cutting-edge green fuel retailing & logistics company, we have specialized expertise in the transportation of LNG & Hydrogen, Green transportation like the transportation of goods on LNG powered trucks, fueling & Retailing of LNG - Liquefied Natural Gas as well as in handling O&M- Operation maintenance of LNG/LCNG stations.



**LNG
TRANSPORTATION**



**LNG RETAILING &
FUELLING NETWORK**



**GREEN LOGISTICS
SOLUTIONS**



**O&M FOR LNG/LCNG
STATIONS**



**HYDROGEN
TRANSPORTATION**

“New initiatives in NG pipeline network & CGD network”



- LNG TRANSPORTATION VEHICLE
- LNG DISPENSING SYSTEM
- LNG AS FUEL FOR HCV

Presentation :

By **MILAN DONGA**
(Director)

LNG TRANSPORTATION VEHICLE



LNG TRANSPORTATION VEHICLE

Operation cycle of LNG tanker



Checking of vehicle by CGF engineer before loading



Loading of LNG tanker inside terminal



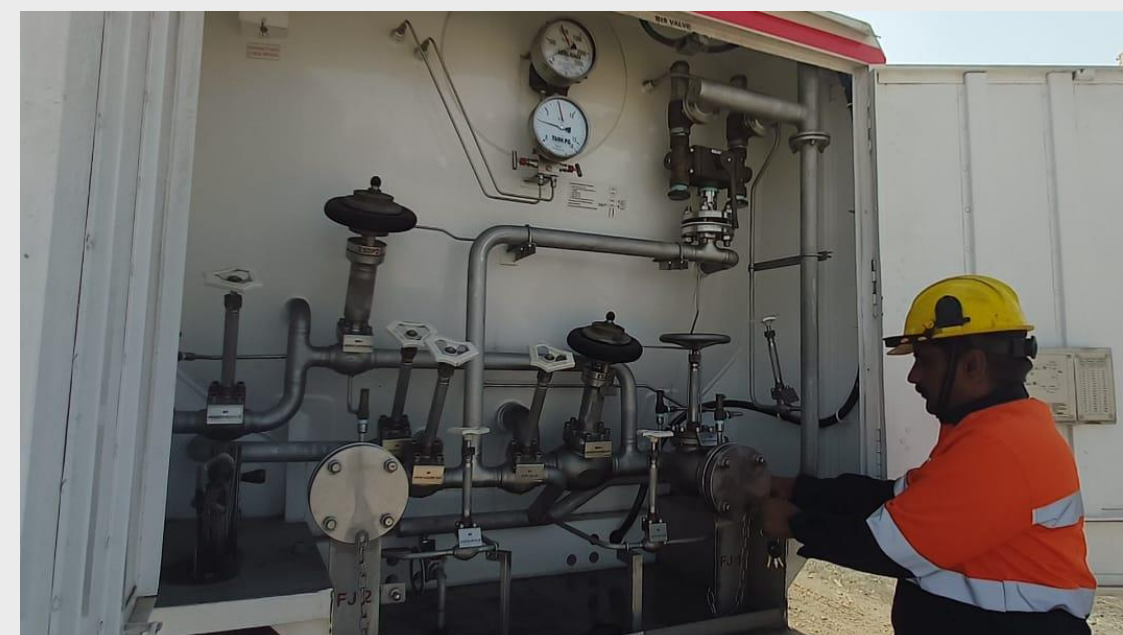
Checking of vehicle by CGF engineer after loading



Fuelling of vehicle



Safely reach at LNG/LCNG station and unloading



Checking of vehicle by driver after 350KM or at middle of the route

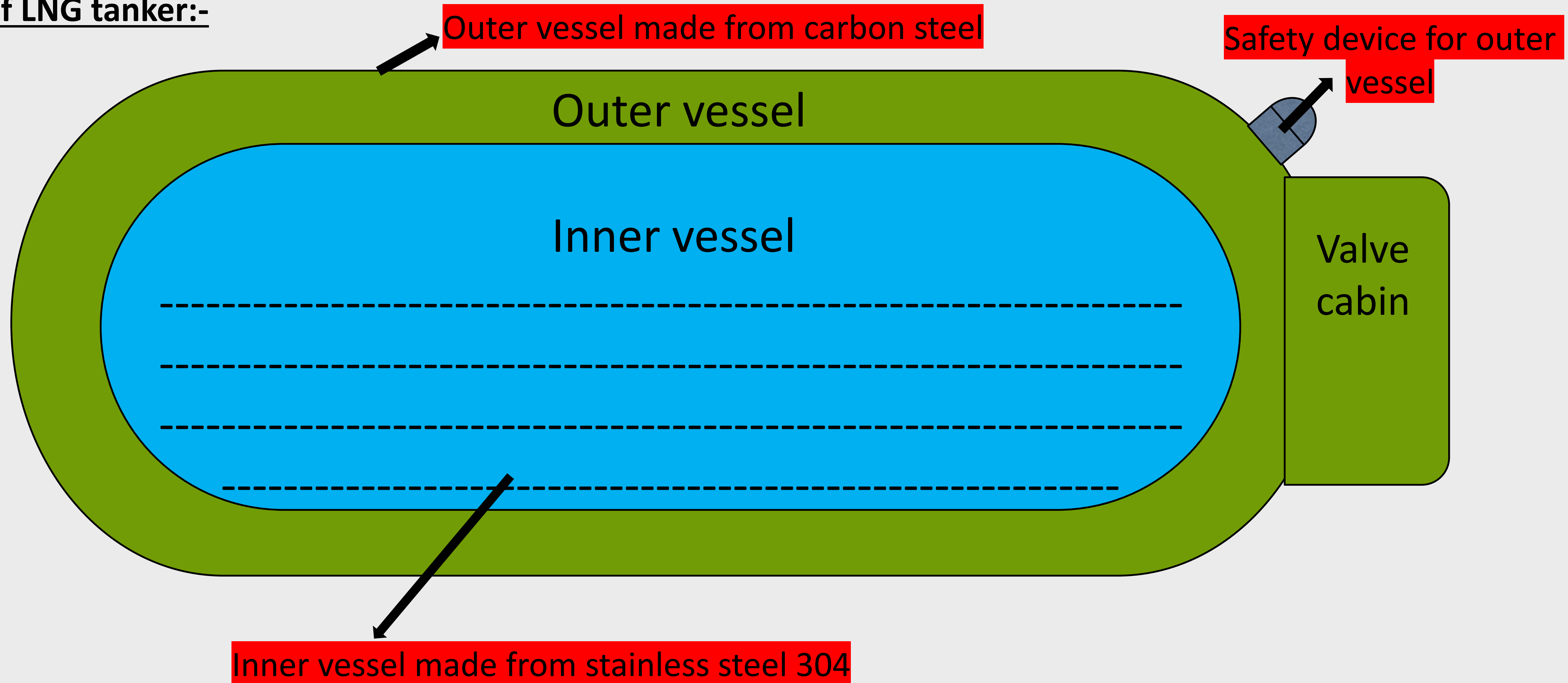


LNG TRANSPORTATION VEHICLE

Understand the LNG tanker in detail



Design of LNG tanker:-



LNG TRANSPORTATION VEHICLE

Understand the role of components of LNG tanker



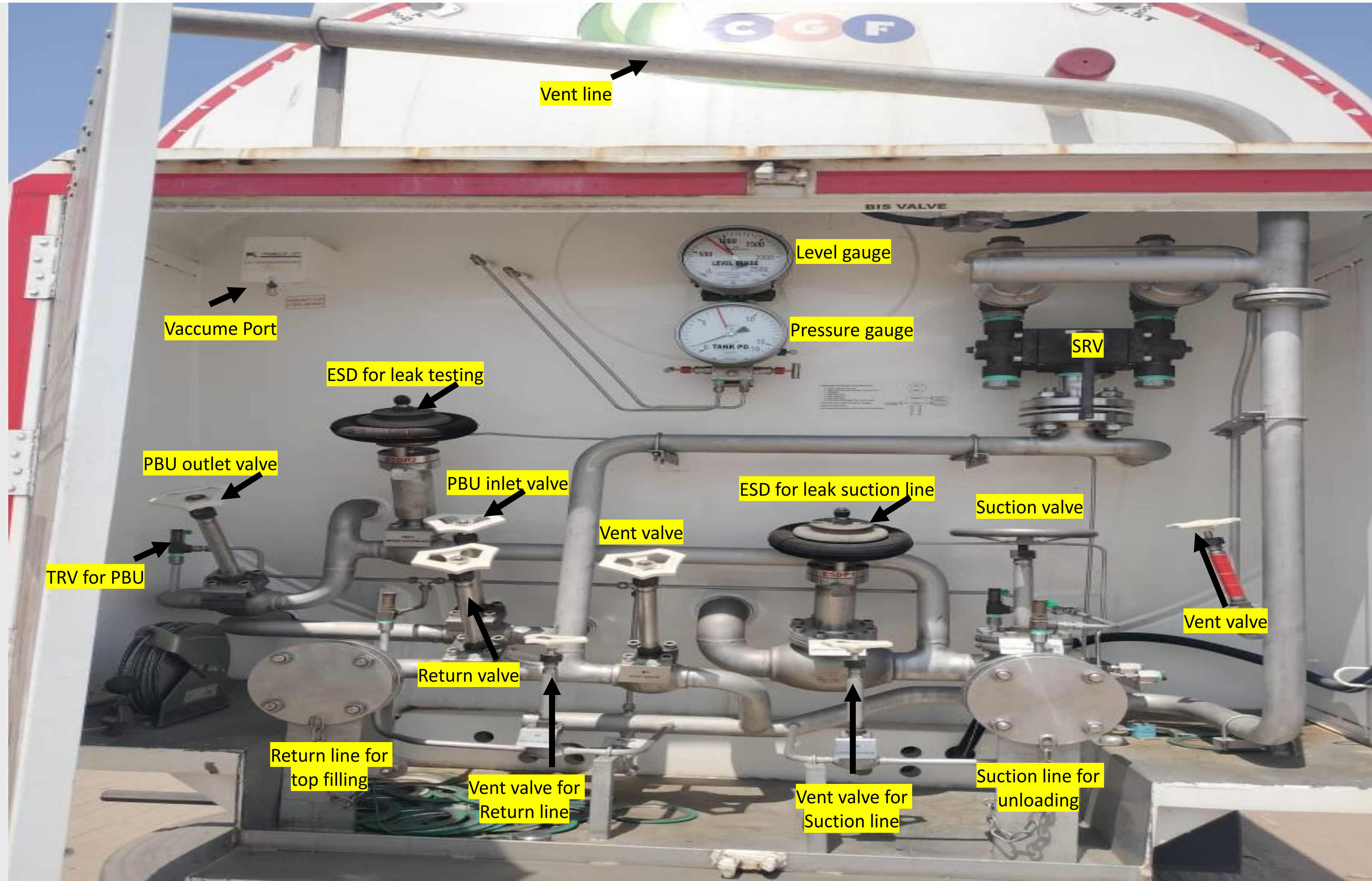
ESD operation valve to operate the ESD

Extra emergency shut down switch on both driver and helper side

Vaporizer or pressurizer to increase the pressure of the tank

LNG TRANSPORTATION VEHICLE

Understand the role of components of LNG tanker



LNG TRANSPORTATION VEHICLE

Safety components we use in LNG tanker



Safety cones

Dress with reflective tape

SAFETY COMPONENTS PICTURES

DISCRIPTION



Cryogenic suit



Cryogenic hand gloves



Face shield



Safety helmet

LNG TRANSPORTATION VEHICLE

Safety components we use in LNG tanker



Safety cones

Dress with reflective tape

SAFETY COMPONENTS PICTURES

DISCRIPTION



Safety goggles



Safety shoes



Fire extinguisher



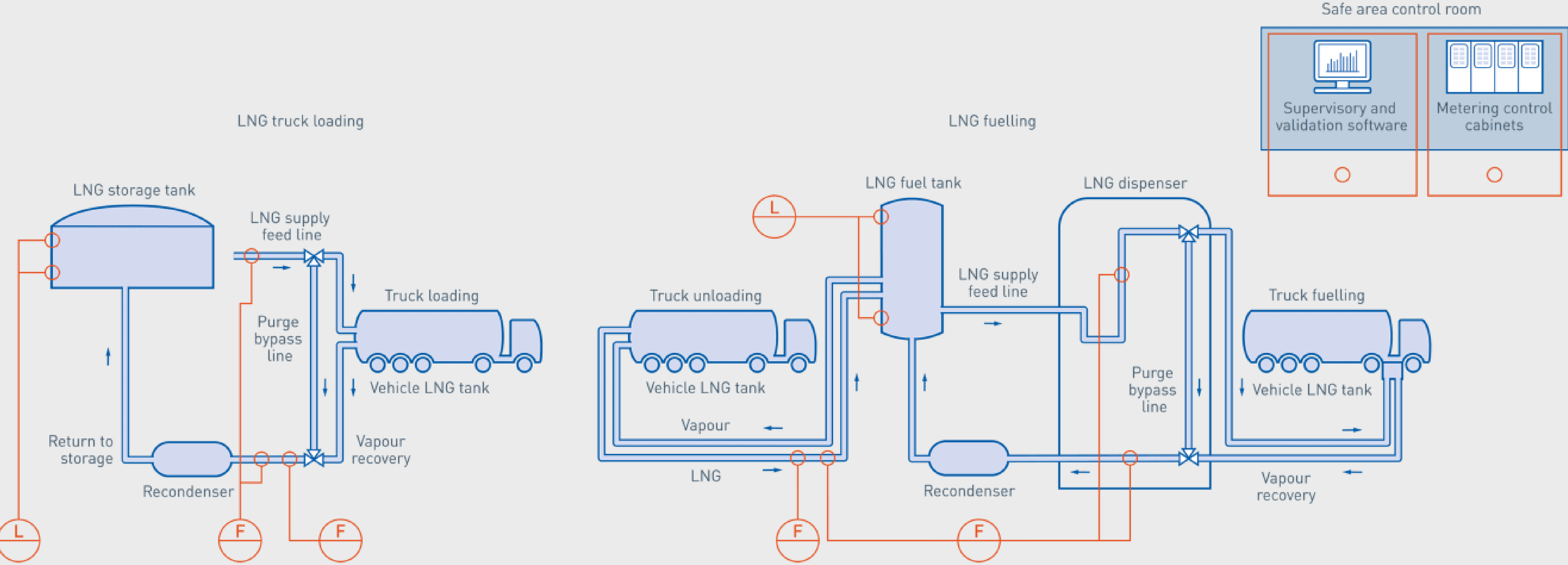
Gas detector

LNG DISPENSING SYSTEM

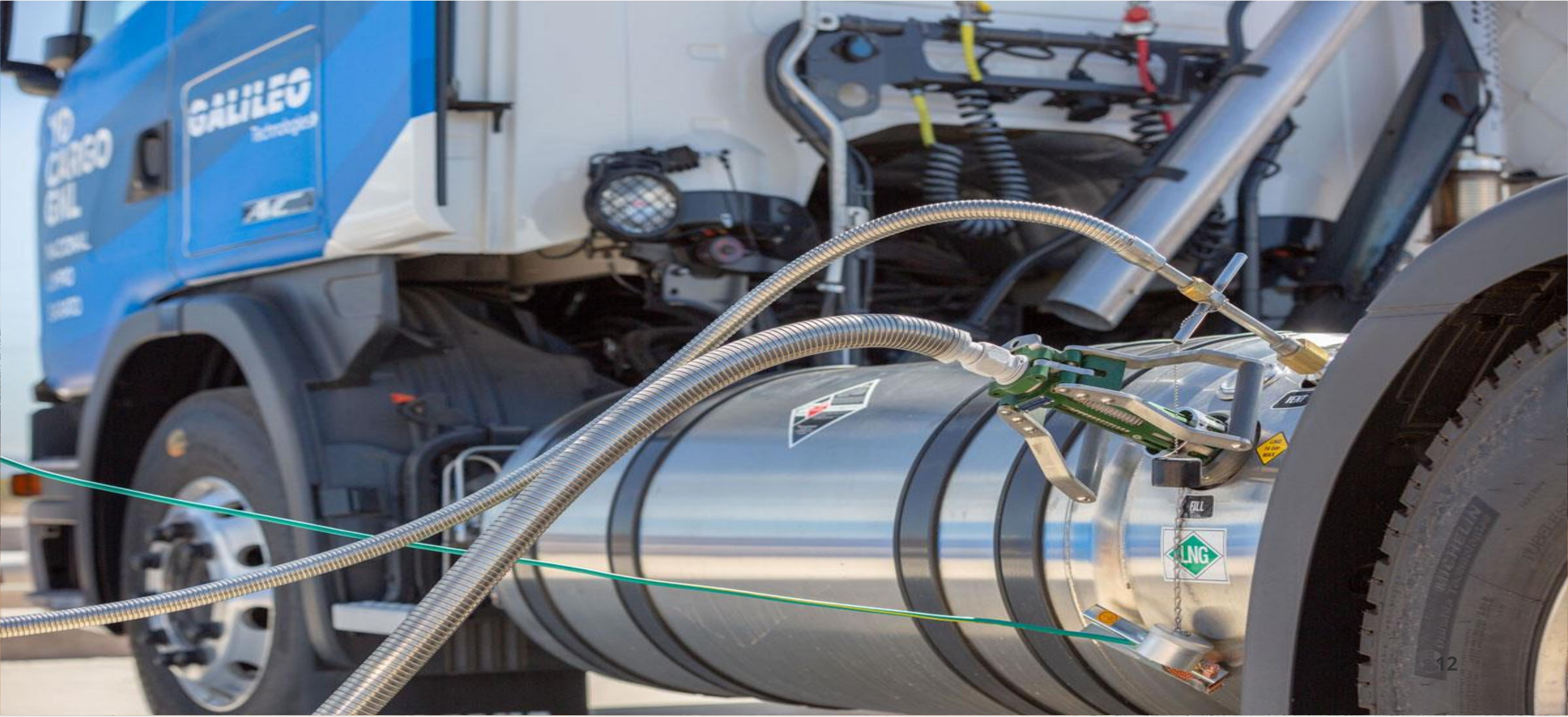


LNG DISPENSING SYSTEM

LNG dispensing process



LNG AS FUEL FOR HEAVY COMMERCIAL VEHICLE



LNG AS FUEL FOR HEAVY COMMERCIAL VEHICLE



Why LNG is better fuel compare to Diesel for heavy commercial vehicle?

Liquefied Natural Gas (LNG) is increasingly being considered a better fuel option than diesel for heavy commercial vehicles due to several key advantages:

Environmental Benefits:

- 1. Lower Emissions :** LNG produces significantly lower levels of harmful emissions compared to diesel. It generates fewer nitrogen oxides (NOx), sulphur oxides (SOx), and particulate matter (PM), which are major contributors to air pollution and health problems.
- 2. Reduced Greenhouse Gases:** LNG combustion emits about 20-30% less carbon dioxide (CO₂) than diesel, contributing to lower greenhouse gas emissions. This reduction helps in mitigating climate change.
- 3. Cleaner Burning :** LNG burns more cleanly than diesel, leading to fewer deposits and contaminants in the engine. This can enhance engine efficiency and longevity while reducing maintenance costs.

LNG AS FUEL FOR HEAVY COMMERCIAL VEHICLE



Why LNG is better fuel compare to Diesel for heavy commercial vehicle?

Economic Advantages

- 1. Fuel Cost Savings :** In many regions, LNG is cheaper than diesel. The price advantage can lead to significant fuel cost savings over the lifespan of a heavy commercial vehicle.
- 2. Stable Pricing :** LNG prices are often more stable than diesel prices, which can be volatile due to geopolitical factors and market fluctuations. This stability allows for better long-term financial planning.

Operational Benefits

- 1. Energy Efficiency :** LNG has a higher energy content per unit of weight compared to diesel, which can contribute to better fuel efficiency for long-haul trips.
- 2. Noise Reduction :** LNG engines tend to be quieter than diesel engines, reducing noise pollution and improving the working environment for drivers and communities.

LNG AS FUEL FOR HEAVY COMMERCIAL VEHICLE



Why the adoption of LNG and adoption of LNG trucks is slow in India?

The following reason due to that adoption of LNG powered truck is slow in India

1. Instability of LNG rates.
2. LNG powered truck twice expensive compare to diesel trucks.
3. Retrofitting charges for converting old diesel truck to LNG is costly
4. Retrofitted truck not getting extra life from government bodies
5. Less availability of LNG refuelling station
6. Some category of vehicle are still not permissible to use LNG powered truck
7. LNG powered trucks hiring customers are very less
8. Transportation cost getting hire than the diesel truck because fix cost of LNG powered truck is higher compare to diesel powered truck

LNG AS FUEL FOR HEAVY COMMERCIAL VEHICLE



Few potential strategies that could grow the market of LNG?

The following potential strategies that could grow the market of LNG

- 1)** The cost of an LNG-powered truck should be comparable to that of a diesel vehicle. Currently, an LNG-powered truck costs twice as much as a diesel truck.

- 2)** Myth concern regarding the boil-off gas from the LNG-powered truck's fuel tank should be resolved by giving the transporter information about cryogenic fuel tanks.

- 3)** Certain types of vehicles, such as fuel tankers, are still prohibited from being attached to prime movers driven by LNG. If approved, it may completely alter the LNG market.

- 4)** To enable LNG-powered vehicles to be adopted more quickly than diesel-powered trucks, there should be a rebate on tolls and road charges.

LNG AS FUEL FOR HEAVY COMMERCIAL VEHICLE



Few potential strategies that could grow the market of LNG?

- 5)** The natural gas share may rise if the government offers subsidies for the construction of LNG fuelling stations. It is also true that LNG stations are more costly than fuelling stations for gasoline or diesel.
- 6)** The largest issue facing the LNG business as it develops now is gas boil-off from LNG fuelling stations. It should be feasible to use the boil-off gas instead of letting it go into the atmosphere. It is the biggest activity that affects the ecosystem is leaving methane in the air. It can also lower the rate of LNG if it can be adequately managed.
- 7)** Both LNG fuel and storage tanks ought to be reasonably priced.
- 8)** An additional validity should be granted to an old vehicle that has been changed from a diesel to an LNG engine.
- 9)** A decrease in the vehicle's conversion cost may also improve the market.

THANK YOU



CLEAN GREEN FUEL & LOGISTICS PRIVATE LIMITED

ADDRESS:- Westgate Business Bay, B2-802, S.G Highway,
Makarba, Ahmedabad Gujarat India 380051

EMAIL:- director@cgflogistics.in