

Technical Specification:

1. Requirement:

- a. Supply & installation of one storage tank of 10 KL capacity of working pressure of 16-18 kg/cm² with storage capacity of approx 8,700 cum Oxygen gas in one tank.
- b. Supply of Medical Grade Liquid Medical Oxygen as per IP: 2018 (including transport up to the site and including maintenance of Cryogenic storage tank)

2. Terms & Conditions:

- a. Periodical check-up and maintenance of LOX tank by technician shall be provided from vendor side.
- b. Immediate refilling the storage tank is to be done from vendor side as and when required.
- c. Obtaining PESO license & other related works.
- d. Civil works as per requirement to be done from vendor side for foundation of storage tank.
- e. Connection and installation up to existing pipeline manifold (approx. 75 meter).
- f. Time of completion – 30 days for installation of storage and supply of Liquid Oxygen shall be within 12 hours.

3. Mode of Measurement of Liquid Medical Oxygen:

By weight of tanker. The conversion factor of 1 kg of liquid oxygen =0.770 cum/l ltr of Liquid oxygen = 0.877 cum.

4. Warranty of equipment:(i.e. storage of tank and other related equipment)

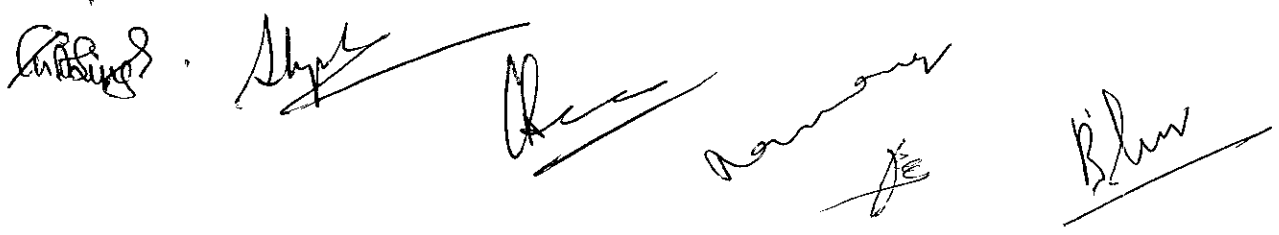
Five year from the date of commissioning of the project and

5. Purity of Medical grade liquid oxygen:

The purity of liquid oxygen should be 95% or more.

6. Technical Specification of Cryogenic Tank:

- i. Capacity – 10KL + 10%
- ii. Alarm VIE (Vacuum Insulated Evaporator)
- iii. Low Content Level (Audio Visual)
- iv. Low Pressure alarm (Audio Visual) and back up at manifold room.
- v. Alarm VIE low pressure alarm (Audio Visual) low pressure in pipeline system.
- vi. The Tank/Vessel should have two separate liquid withdrawal valve with dual parallel regulator system for uninterrupted supply, allowing lines to be sub sequentially closed for maintenance / repair.
- vii. Three way gauge valve for isolation of line pressure with manual control.
- viii. The vessel should be maintained in such a way as to keep natural evaporation rate less than 1 % per day.
- ix. The vessel should be double walled insulated with MAWP (Max allowable working pressure: 16 -18 kg/cm² as per ASME/EN/Equivalent).
- x. The vacuum insulated tank (VICC) should consist of an inner vessel made of stainless steel, designed for a positive pressure at cryogenic temperature and an outer vessel made of carbon steel, designed for vacuum. The inner vessel should be supported on the outer vessel. The in between space is filled with perlite powder to sustain cryogenics temperature and vacuum.



In addition to the Technical Specification submitted the following shall be added.

1. Specification of 10KL capacity Liquid Medical Oxygen (LMO) tank on turn key.
2. Terms & Conditions
 - a. Periodical check-up and maintenance of LOX tank by technician shall be provided from vendor side.

Amend to

The vendors should detain a technician from their side for a minimum period of 6 months for hands on training to our RIMS Technician

- i. Spot checking/survey for installation of 10 KL capacity Liquid Medical Oxygen (LMO) by team of CWS and hospital shall be done.
- ii. Main consumables are liquid oxygen and others which should be supplied and maintained by the vendor.
- iii. Layout plan from interested Vendors may be helpful.

