**ANNEXURE- I**

**cold room technical specification**

**(Amendment No. HLL/MKG/WHO/VACCINE-001 dated 17th June 2014)**

|  |  |  |
| --- | --- | --- |
| **s.****no** | **parameter** | **value** |
| 1 | ambient temperature  | 40 deg c |
| 2 | designed room temperature  |  2 to 8 Deg C |
| 3 | product to be stored | Vaccines for human use |
| 4 | product incoming temperature [°c] | incoming @ 15 deg c  |
| 5 | product final temperature required[°c] | final @ 4 deg c |
| 6 | qty of product stored per day/batch [in kgs] | 30,000 vials, each bottle carries 6 ml liquid pentavalent) |
| 7 | pull down time [hrs] | 12 hours |
| 8 | room size  | 4 x 3 x2.4 meters (inner size) |
| 9 | material of insulation | puf  |
| 10 | thickness of insulation [mm] | 80 mm |
| 11 | wall lamination out/in | 0.5 mm pcgi/ 0.5 mm ss 304 |
| 12 | ceiling [out/in] | 0.5 mm pcgi/ 0.5 mm ss 304 |
| 13 | type of floor insulation | 60 mm thick PUF with 0.5 mm GI+ 6 to 12 mm plywood + 1.2 mm AL Chk plate |
| 14 | thickness of floor insulation [mm] | 60 mm |
| 15 | size of door | 900 x 2000 mm, suitable for 80 mm thick puf insulated wall |
| 16 | type of door  |  swing panel mounted type, 0.5 mm pcgi/ 0.5 mm ss 304 (same as panel finish) with internal clear plastic strip curtain |
| 17 | type of refrigeration system | split type |
| 18 | type of cooling | dx cooling |
| 19 | capacity of refrigeration system [kw ] | 4 kw  |
| 20 | type of refrigerant | r404a |
| 21 | type of compressor | hermetic |
| 22 | type of condenser | air cooled |
| 23 | no of condensing units | 2 no's [1 w+1 s] |
| 24 | moc for condensing units | powder coated gi, cu tubes with al fins |
| 25 | no of evaporator units | 2 no's [1 w+1 s] |
| 26 | electrical panel for ref system | free standing /inbuilt in cond. unit |
| 27 | type of evaporator units | forced air cooled |
| 28 | moc for evaporator units | ss 304 casing, al fins cu tubes |
| 29 | lighting inside the rooms | suitable for 150 lux luminosity |
| 30 | type of light fitting | tungsten filament light(vapour proor) |
| 31 | temperature indicator cum controller | micro-processor based controller |
| 32 | no. of temperature sensor required in the cold room for temp. monitoring & storing through single data logger. | 5 no’s |
| 33 | door opening with access control (swipe cord type) | required |
| 34 | audio & visual alarm hooter in the coldroom when temp. exceeds the maximum limit & sms alert required to the concerned person | required |
| 35 | power supply | 230 v/415 V,50hz,1/3 phase, a.c. supply |
| 36 | data logger for storing temp. reading of five sensor | software with 21 cfr part 11 compliance for temp. storing & monitoring |
| 37 | door open sensor linked with alarm | required |
| 38 | Vendor to consider following for quote | 1. Power cable, copper tubes (liquid & suction line) with insulation & drain pipe – 6rmt.
2. Civil wall breaking for connecting copper tube, power cable etc. from IDU to ODU.
 |

**Validation REQUIREMENT:**

1. DQ/IQ/OQ and PQ documentation.
2. Validation PQ should cover temperature mapping and penetration studies.
3. 16 temperature probes shall be used for the temperature mapping studies for 48 hours in cold room.
4. 4 temperature probes shall be used for Penetration/ Dip test (to find product temperature) studies for 48 hours.
5. Data logger and all probes should have calibration certificate with traceability.

***Note: If any deviations on above points, vendor to mention it separately.***

**Annexure V**

**PRICE SCHEDULE**

**(Amendment No. HLL/MKG/WHO/VACCINE-001 dated 17th June 2014)**

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| **BILL OF QUANTITY FOR WALK-IN COLD ROOM** |
| **S.No.** | **ITEM DESCRIPTION**  | **QTY** | **UNIT** | **SUPPLY** | **INSTALLATION** |
| **RATE** | **AMOUNT** | **RATE** | **AMOUNT** |
| 1 | SUPPLY, INSTALLATION, COMMISSIONING AND VALIDATION OF COLD ROOM (AS PER ABOVE ATTACHED TECHNICAL SPECIFICATION) | 1 | LOT |   |   |   |   |
| 2 | EXTRA COPPER PIPE (SUCTION & LIQUID) WITH INSULATION FOR SUCTION LINE | 1 | RMT |   |   |   |   |
| 3 | EXTRA ELECTRICAL CABLE WITH CONDUIT | 1 | RMT |   |   |   |   |
| 4 | EXTRA PVC DRAIN PIPE  | 1 | RMT |   |   |   |   |
| TOTAL BASIC PRICE |   |   |
| EXCISE DUTY |   |   |
| SALES TAX (CST @ 2% / VAT) |   |   |
| SERVICE TAX |   |   |
| TOTAL PRICE |   |   |
| **TOTAL (SUPPLY & INSTALLATION) INCLUDING ALL TAXES & DUTIES** |   |
|  |  |  |  |  |  |  |  |
| **Note:** |  |  |  |  |  |  |  |
| 1. The quoted price shall be for supply, installation, commissioning, validation & complete qualification package ( DQ, IQ, OQ & PQ)  |
| 2. The quoted price shall be inclusive of all applicable duties, taxes, freight charge, packing & insurance. |  |  |  |
| 3. Form 'C' will be provided for CST  |  |  |  |  |  |  |
| 4. Do refer to the technical specification. |  |  |  |  |  |  |

NB: Unit price shall be written in figures and words

Total Tender price in Rupees: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**In words:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Note: -If there is a discrepancy between the unit price and total price, then the unit price shall prevail.

Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Business Address : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Place : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature of Tenderer : \_\_\_\_\_\_\_\_

Date : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Seal of the Tenderer : \_\_\_\_\_\_\_\_