## ा स विद्या य विद्रकरे ॥ भारतीय प्रीक्रोणिकी संस्थान धारवाड

#### Indian Institute of Technology Dharwad

WALMI Campus, Belur Industrial Area, Near High Court, PB Road, Anjaneya Nagar, Dharwad 580011, Karnataka

### Minutes of Pre-Bid Conference (PBC) held on 19.05.2022 for procurement of Kitchen Equipment (Custom make).

The Pre-Bid Conference for TENDER FOR SUPPLY, INSTALLATION, COMMISSIONING AND DEMONSTRATION OF KITCHEN EQUIPMENT (CUSTOM MAKE) AT INDIAN INSTITUTE OF TECHNOLOGY DHARWAD,

IIT Dharwad Tender No.: IITDH/MMD/PC/2022 23/002,

GeM Bid No. :GEM/2022/B/2125342, was held on Thursday, 19.05.2022 at 11:00 am virtually, as per tender conditions.

The following were present:

#### From Buyer's Side:

Prof. S R M Prasanna, Chairman

Prof. Nagesh lyer, Dean (IPS)

Dr. D Lakshmanan, CAAO, SETS Chennai

Shri S Gnanaprakasam, Sr. CoSP, CSIR-CCMB, Hyderabad

Mr. Sundeep P, Executive Engineer

Mr. Rahul Raj, Jr. Engineer

Dr. Rajeshwara Rao, Asst. Professor

Mr. Anilkumar Angadi, Asst. Registrar (MMD) - Convenor

#### From Bidders' side

SI. No	Company	Represented by	
1	M/s. Muskan Equipments Company, New Delhi	Mr. Prakash Rajput	
2	M/s. J B Equipments, New Delhi	Mr. Sombeer Bambaniya	
3	M/s. Crystal Kitchen Solutions, New Delhi	Mr. Ragothaman Rajagopal	
4	M/s. Kings Kitchen Solutions, Pune	Mr. Uday	
5	M/s. Klas Products Pvt Ltd., New Delhi	Mr. Sahil Gulliani	
6	M/s. AGARWAL CROCKERY HOUSE, Hyderabad	Mr. Saket Agarwal	
	M/s. Kalkura Refrigeration & Kitchen Equipments		
7	Pvt Ltd, Udupi	Mr. Ananthmurthy	
8	M/s. Talent Transformation Group, Lucknow	Mr. Arpit Srivastava	
9	M/s. Royal Equipment Co., New Delhi	Mr. Mohit	

#### Even though

1. M/s. S S Equipments and Machines, Pune and

# । सा विद्या या विस्तवर थे।।

भारतीय प्रौद्योगिकी संस्थान धारवाड

**Indian Institute of Technology Dharwad** 

WALMI Campus, Belur Industrial Area, Near High Court, PB Road, Anjaneya Nagar, Dharwad 580011, Karnataka

2 M/s. Brothers Equipment and Engineering Private Ltd, Bhubaneswar, registered for attending the Pre Bid Conference, they did not attend the Pre-Bid Conference.

The Pre-Bid Conference started after brief welcome address by Convenor. As per tender conditions, the bidders should have sent mail on or before 13.05.2022 to seek clarifications during the Pre-Bid Conference. But IIT Dharwad did not receive any such mail. However, during the Pre Bid Conference, the clarifications sought by bidders present were replied/responded by IIT Dharwad. Bidders present were also informed that IIT Dharwad will not entertain any request seeking clarifications beyond this Pre-Bid Conference and hence they were advised to seek clarification, if any during the Pre-Bid Conference itself. Bidders present were requested to make note of all clarifications given during the Pre-Bid Conference.

The clarifications sought by bidders and response given by IIT-DHARWAD are given in the annexure enclosed, which will be hosted in GeM portal and in IIT Dharwad's website.

Chairman sought active participation from all bidders present.

The Pre-Bid Conference ended with thanks to the Chair.

	Prebid Queries - Kitchen Equipment - Custom - 19th May 2022					
S No.	Page No.	Item No.	As per Bid	Clarification Sought	Response by IIT Dharwad	
1	20	27	Supply Installation Commissioning and Demonstration of BULK FRYER With Dual Option of Gas Cum Electric Based, Overall Size: 750X750X750+250mm ht.  TOP: Sunk in to be Fabricated from 16SWG Stainless Steel AISI 304 Grade Sheet, Two sides & Front to be turned down 38 mm and in 12 mm, Frying Bowl Fabricated in 8 mm thick Mild Steel Plate of 600mm dia x 150mm deep with a border of 75mm in 14SWG Stainless Steel AISI 304 Grade Sheet with lifting Handles, Embedded in top stainless steel front control panel with 18 SWG  SIDE SKIRTING: in 18SWG Stainless Steel AISI 304 Grade Sheet. UPRIGHTS in 38 mm dia. X 16SWG thick Stainless Steel AISI 304 grade pipe fitted with White Nylon Bullet Leg with 25mm ht. adjustment and bracing all-round with 25 mm dia 16SWG thick Stainless Steel AISI 304 grade pipe welded to uprights at 150 mm from FFL.  INTERNAL FRAMEWORK in 35X35X3mm Angle, 25x3 mm thick Flat in Stainless Steel AISI 304 grade pipe welded to Uprights at 150 mm from FFL.  RITERNAL FRAMEWORK in 35X35X3mm Angle, 25x3 mm thick Flat in Stainless Steel AISI 202 Grade. BURNERS & FITTINGS: One no. T -50 burner provided with Individual Pilot Burner, Needle Control Valve (3/8 BSPTM X 3/8 Cu), Copper Pigtail (Suitable Length) internal gas pipeline of 12 mm dia. NB with ERW mild steel pipe 'C' Class of approved make (Thermostat for accurate temperature setting * Residue plate for filtering out the dregs tank as required Dimension overall. With required heating elements.  WELDING: should be done by Argon Arc / Tig welding only. No Electrical Arc Welding should be used. All the welded edges, surfaces should be properly & smoothly ground & finished to remove any burr or sharp edges.  FINISH: All plain & pipe surfaces should be finished brush uniformly to give an aesthetically pleasant look.	Clarification on whether the heating coil have to be provided inside or outside the vessel	Proceed as per the specifcation provided	
2	20	28	Supply Installation Commissioning and Demonstration of BULK FRYER With Dual Option of Gas  Cum Electric Based, Overall Size: 750X750X750+250mm ht.  TOP: Sunk in to be Fabricated from 165WG Stainless Steel AISI 304 Grade Sheet, Two sides & Front to be turned down 38 mm and in 12 mm, Frying Bowl Fabricated in 8 mm thick Mild Steel Plate of 600mm dia x 150mm deep with a border of 75mm in 14SWG Stainless Steel AISI 304  Grade Sheet with lifting Handles, Embedded in top stainless steel front control panel with 18  SWG  SIDE SKIRTING: in 18SWG Stainless Steel AISI 304 Grade Sheet. UPRIGHTS in 38 mm dia. X  16SWG thick Stainless Steel AISI 304 grade pipe fitted with White Nylon Bullet Leg with 25mm  ht. adjustment and bracing all-round with 25 mm dia 16SWG thick Stainless Steel AISI 304 grade pipe welded to uprights at 150 mm from FFL.  INTERNAL FRAMEWORK in 35X35X3mm Angle, 25X3 mm thick Flat in Stainless Steel AISI 202 Grade. BURNERS & FITTINGS: One no. T -50 burner provided with Individual Pilot Burner, Needle Control Valve (3/8 BSPTM X 3/8 Cu), Copper Pigtail (Suitable Length) internal gas pipeline of 12 mm dia. NB with ERW mild steel pipe 'C' Class of approved make (Thermostat for accurate temperature setting * Residue plate for filtering out the dregs tank as required Dimension overall. With required heating elements.  WELDING: should be done by Argon Arc / Tig welding only. No Electrical Arc Welding should be used. All the welded edges, surfaces should be properly & smoothly ground & finished to remove any burr or sharp edges.  FINISH: All plain & pipe surfaces should be finished brush uniformly to give an aesthetically pleasant look.	Clarification on whether the heating coil have to be provided inside or outside the vessel	Proceed as per the specifcation provided	

3	23	35	Supply Installation Commissioning and Demonstration of IDLY STEAMER, 300 IDLIS capacity All three boxes of 80 idlies each in 1x3 configuration Fabricated from 185WG Stainless Steel AISI 304 Grade Sheet, Each Box shall hold 4 no of Trays with 20 pockets of 90mm dia x 7mm deep for idlies made from 195WG Stainless Steel AISI 304 Grade Sheet, Backed with drip trays made from 215WG Stainless Steel AISI 304 Grade Sheet, The inner and outer walls of the unit on all sides shall be filled with 75 mm thick non-sagging mineral glass wool. The door shutters of all three boxes shall be provided with 16 5WG double wall stainless steel sheet with 40 mm thick mineral glass wool in- between. The doors shall be provided with nard rubber beading alround, tightly closing handles in stainless steel with a PVC knob at the end of the handle rod and a separate knob/ handle at the centre of the shutter. UPRIGHTS: The boxes shall be integrally built one upon another and mounted on a stand. The uprights of the stand shall be in 38 mm dia.X 165WG thick Stainless Steel AISI 304 grade pipe fitted with White Nylon Bullet Leg with 25mm ht. adjustment. The unit shall rest on the frame work of stand with 50x50x5 mm stainless steel angle of 202 grade. A drain channel of size 65x65 mm made with 18 swg stainless steel AISI 304 grade shall be provided at the bottom of the unit to collect the seepage water from boxes. A 12 mm dia stainless steel spout shall be welded at one end of the drain Will have built in water tank. The heating will be done by V-burner. INTERNAL FRAMEWORK in 35x35x3mm thick Stainless Steel AISI 202 Grade Angle below the Top. WELDING: should be done by Argon Arc /Tig welding only. No Electrical Arc Welding should be used. All the welded edges, surfaces should be finished brush uniformly to give an aesthetically pleasent look	300 IDLIS capacity All three boxes of 80 idlies each in 1x3 configuration Fabricated from 185WG Stainless Steel AISI 304 Grade Sheet, Each Box shall hold 4 no of Trays with 20 pockets	300 IDLIS capacity All three boxes of 100 idlies each in 1x3 configuration Fabricated from 18SWG Stainless Steel AISI 304 Grade Sheet, Each Box shall hold 4 no of Trays with 25 pockets
4	26	44 & 45	Supply Installation Commissioning and Demonstration of SS BAKERY DISPLAY  185WG exterior and 225WG interior with 2 No of S3304 shelves Lift up tempered front glass with shower hinge, rear removable sliding door, aluminium light canopy with polycarbonate diffuser, LED light, changeable front and side panel, Operating temperature of 2-8 degree Celsius, Forced Draft Technology - Cooling Coil with fans for proper in and out air circulation  SS BAKERY DISPLAY TYPE A, Overall size = 1200 X 900 X 1200mm	Lift up tempered front glass with shower hinge, rear removable sliding door, aluminium light canopy with polycarbonate diffuser, LED light, changeable front and side panel	Lift up tempered front glass with shower hinge, rear fixed sliding door, aluminium light canopy with polycarbonate diffuser, LED light, fixed front and side panel
5	27	47, 48	Supply Installation Commissioning and Demonstration of THALLI STAND Unit to entire frame work to be made of 38*38mm*16g square pipe frame work fitted with 10mm dia road at clear distance of 50mm Unit to have provision of shelves to hold plate size - 40x30cm and water drain point at the bottom rack Thalli stand will be placed against the wall along the longer side Unit to have legs of 38*38mm*16g and should have 150mm metal revolving castors 4 nos. of which two are lockable WELDING: should be done by Argon Arc /Tig welding only. No Electrical Arc Welding should be used. All the welded edges, surfaces should be properly & smoothly ground & finished to remove any burr or sharp edges. FINISH: All plain & pipe surfaces should be finished brush uniformly to give an aesthetically pleasent look		THALLI STAND Unit to entire frame work to be made SS304 of 38*38mm*16g square pipe frame work fitted with 10mm dia road at clear distance of 32mm
6	29	59	Supply Installation Commissioning and Demonstration of THALLI TROLLEY Unit to entire frame work to be made of 38*38mm*16g square pipe frame work fitted with 10mm dia road at clear distance of 50mm Unit to have provision of shelves to hold 100 steel thalli(plate)at one time Unit to have 18g SS 304 one under shelf at +150mm ht Unit to have legs of 38*38mm*16g and should have 150mm metal revolving castors 4 nos. of which two are lockable	Unit to entire frame work to be made of 38*38mm*16g square pipe frame work fitted with 10mm dia road at clear distance of 50mm	Unit to entire frame work to be made SS304 of 38*38mm*16g square pipe frame work fitted with 10mm dia road at clear distance of 32mm
7	30	62	Transit Facility with Connected cylinders (5 cylinder per manifold) (Type B)	Number of manifold to be provided to be specified	Single manifold System to be provided
9	30	63	Dormitory for Connected Cylinders (3 cylinder per manifold) (Type C)  Design, supply, installation and commissioning of GAS LEAKAGE DETECTION SYSTEM for kitchen and gas bank  Flameproof sensing modules with digital display showing % of leak, controller with graphic LCD display, 3 level alarm thresholds and all sensors addressable expandable upto 60 sensors, output for automatic shutoff, BMS connectivity. No of sensors is to be determined by the size of the kitchen and gas bank and as approved by Engineer-in-Charge. (4 Kitchens of diffrent sizes & capacities Refer Drawings attached for details).	Number of manifold to be provided to be specified  Preferred Make for Gas Detection System needs to be specified	Gas Detection System including sensors shall have the approval from the PSU Oil company i.e. IOCL/HPCL/BPCL and concerned authorities.
10	30	65	Design, supply, installation commissioning and demonstration of COMMERCIAL EXHAUST HOOD SYSTEM SS exhaust hood with baffle filters of made of 20swg SS304 with SS bolts and nuts. The hood shall have thick SS304 baffle type filters with handle. There shall be 14swg SS202 brackets to hang the hood from the ceiling. Fire suppression system, of make- ceasefire, ansul or amrex, shall be provided in hood. Provision to clean the carbon soot accumulated. For illumination, there shall be 4 nos of 2x40-220v-1ph LEDs fitted in each hood. Fan and Necessary Ventilation Ducting System shall be Done by Ventilation Vendor(Client side), Only the Hood System needs to be supplied and installed.	Clarification to be provided regarding the size of the Exhaust Hood	Exhaust hood will be a combination of wall mounted and ceiling mounted. Design of the size of the hood have to be planned as per the drawing layout provided, taking into the consideration of location, type of equipment for which it caters and other design parameters.

			Disease design Completed Construction of CALVALUATE CONTRACT		
11	31	66	Planning, design, Supply and Construction of GALVALUME SHEET Covered Shed for the Installation of Composter and	Clarification on the sine of see book and compactor	Defeate the drawings attached
11	31	00	Gas Bank at Mess Block Service shed for the Gas Bank, Rapid Composting Machine & Toilet. For complete SCOPE OF WORK please refer to ATC (refer below)	Clarification on the size of gas bank and composter	Refer to the drawings attached
12	14	12,13	Supply Installation Commissioning and Demonstration of PREPARATION TABLE WITH SINK and One Under Shelf  TOP: of the Table is to be Fabricated from 16SWG Stainless Steel AISI 304 Grade Sheet, Sunk in Top with Two sides & Front to be turned down 38 mm and in 12 mm, & Back side 150 mm high back splash. turned back at 90 by 20mm & 12mm,  UNDERSHELVES: 1 in No. to be Fabricated from 18SWG Stainless Steel AISI 304 Grade Sheet, All sides to be turned down 38 mm and in 12 mm. Welded at 150mm from Bottom of Unit, The bottom of under shelf shall be provided with one longitudinal and two cross braces with 35x35x3 mm thick stainless steel AISI 202 grade angle for rigidity. The cross braces shall be welded to uprights.  UPRIGHTS in 38 mm dia X 16SWG thick Stainless Steel AISI 304 grade pipe fitted with White Nylon Bullet Leg with 25mm ht. adjustment.  INTERNAL FRAMEWORK in 35X35X3mm thick Stainless Steel AISI 202 Grade Angle below the Top.  Sink Bowl: Size- 600x600x300mm deep Fabricated from 16SWG Stainless Steel AISI 304 Grade Sheet, with all bottom & sides edges rounded at 38mm dia the Bowl Welded to Top securely with removal of all holes or burr & finished properly to give a uniform look.  Provision of 50 mm dia sunk with drain holes at bottom centre of the bowl and stainless steel coupling with gate valve of 50 mm dia. Sink to be provided with drain basket. Also one nos of pre-rinse spray unit with faucet of Jaquar/Hindware/Washmatic (CP)  WELDING: should be done by Argon Arc / Tig welding only. No Electrical Arc Welding should be used. All the welded edges, surfaces should be properly & smoothly ground & finished to remove any burr or sharp edges.  FINISH: All plain & pipe surfaces should be finished brush uniformly to give an aesthetically pleasant look.  PREPARATION TABLE WITH SINK & One Under Shelf TYPE A with specification as above and Overall Size: 1800X600X850+150mm ht. (Type A)	Clarification on the number of pre-rinse unit	As per specification, provide one nos of pre-rinse unit
13	14	14, 15,16, 17 18	Supply Installation Commissioning and Demonstration of TABLE WITH SINK & one under shelf with backsplash TOP: of the Table is to be Fabricated from 16SWG Stainless Steel AISI 304 Grade Sheet, Sunk in Top with Two sides & Front to be turned down 38 mm and in 12 mm, & Back side 150 mm high back splash. turned back at 90 by 20mm & 12mm, UNDERSHELVES: 1 in No. to be Fabricated from 18SWG Stainless Steel AISI 304 Grade Sheet, All sides to be turned down 38 mm and in 12 mm. Welded at 150mm from Bottom of Unit, The bottom of under shelf shall be provided with one longitudinal and two cross braces with 35x35x3 mm thick stainless steel AISI 202 grade angle for rigidity. The cross braces shall be welded to uprights. UPRIGHTS in 38 mm dia X 16SWG thick Stainless Steel AISI 304 grade pipe fitted with White Nylon Bullet Leg with 25mm ht. adjustment.  INTERNAL FRAMEWORK in 35x35X3mm thick Stainless Steel AISI 202 Grade Angle below the	Clarification on the number of pre-rinse unit	As per specification, provide one nos of pre-rinse unit

14	16	19	Supply Installation Commissioning and Demonstration of TWO SINK PRE WASH UNIT, Overall Size: 1200X600X850mm ht. TOP: of the Table is to be Fabricated from 16SWG Stainless Steel AISI 304 Grade Sheet, Sunk in Top with Two sides & Front to be turned down 38 mm and in 12 mm, & Back side 150 mm high back splash. turned back at 90 by 20mm & 12mm, UNDERSHELVES: 1 in No. to be Fabricated from 18SWG Stainless Steel AISI 304 Grade Sheet, All sides to be turned down 38 mm and in 12 mm. Welded at 150mm from Bottom of Unit, The bottom of the under shelf shall be provided with one longitudinal and two cross braces with 35X35X3mm thick Stainless Steel AISI 202 Grade Angle for rigidity The cross braces shall be welded to uprights, UPRIGHTS in 38 mm dia X 16SWG thick Stainless Steel AISI 304 grade pipe fitted with White Nylon Bullet Leg with 25mm ht. adjustment. INTERNAL FRAMEWORK in 35X35X3mm thick Stainless Steel AISI 202 Grade Angle below the Top. Sink Bowls: Size- 450x450mm 300mm deep Two in No. Fabricated from 16SWG Stainless Steel AISI 304 Grade Sheet, with all bottom & sides edges rounded at 38mm dia the Bowl Welded to Top securely with removal of all holes or burr & finished properly to give a uniform look. Drain basket needs to be provided Fitted at centre of the unit. Provision of 50 mm dia sunk with drain holes at bottom centre of the bowl with Coupling and Gate Valve 50 mm dia. of approved make. And to be provide with one nos. of pre rinse spray unit with faucet and one nos. long body bibcock of Jaquar/Hindware/Washmatic (CP) WELDING: should be done by Argon Arc /Tig welding only. No Electrical Arc Welding should be used. All the welded edges, surfaces should be properly & smoothly ground & finished to remove any burr or sharp edges. FINISH: All plain & pipe surfaces should be properly & smoothly ground & finished to remove any burr or sharp edges.	Clarification on the number of pre-rinse unit and long body bib cock	As per specification, provide one nos of pre-rinse unit and one nos of long bib cock
15	17	20	Supply Installation Commissioning and Demonstration of THREE SINK PRE WASH UNIT, Overall Size: 1800X600X850mm ht. TOP: of the Table is to be Fabricated from 165WG Stainless Steel AISI 304 Grade Sheet, Sunk in Top with Two sides & Front to be turned down 38 mm and in 12 mm, & Back side 150 mm high back splash turned back at 90 by 20mm & 12mm, UNDERSHELVES: 1 in No. to be Fabricated from 185WG Stainless Steel AISI 304 Grade Sheet, All sides to be turned down 38 mm and in 12 mm. Welded at 150mm from Bottom of Unit, The bottom of the under shelf shall be provided with one longitudinal and two cross braces with 35X35X3mm thick Stainless Steel AISI 202 Grade Angle for rigidity. The cross braces shall be welded to uprights, UPRIGHTS in 38 mm dia X 165WG thick Stainless Steel AISI 304 grade pipe fitted with White Nylon Bullet Leg with 25mm ht. adjustment. INTERNAL FRAMEWORK in 35X35X3mm thick Stainless Steel AISI 202 Grade Angle below the Top. Sink Bowls: Size- 450x450mm 300mm deep Three in No. Fabricated from 165WG Stainless Steel AISI 304 Grade Sheet, with all bottom & sides edges rounded at 38mm dia the Bowl Welded to Top securely with removal of all holes or burr & finished properly to give a uniform look. Drain baskets needs to be provided. Fitted at centre of the unit. Provision of 50 mm dia sunk with drain holes at bottom centre of the bowl with Coupling and Gate Valve 50 mm dia. of approved make. And to be provide with one nos. of pre rinse spray unit with faucet and two nos. long body bibcock of Jaquar/Hindware/Washmatic (CP) WELDING: should be done by Argon Arc /Tig welding only. No Electrical Arc Welding should be used. All the welded edges, surfaces should be properly & smoothly ground & finished to remove any burr or sharp edges. FINISH: All plain & pipe surfaces should be properly & smoothly ground & finished to remove any burr or sharp edges. FiniSH: All plain & pipe surfaces should be finished brush / satin finish with 120 gritt (mesh) size uniformly to give an aesthetically pleasant look.	Clarification on the number of pre-rinse unit and long body bib cock	As per specification, provide one nos of pre-rinse unit and two nos of long bib cock
16	31	66	Planning, design, Supply and Construction of GALVALUME SHEET Covered Shed for the Installation of Composter and Gas Bank at Mess Block Service shed for the Gas Bank, Rapid Composting Machine & Toilet. For complete SCOPE OF WORK please refer to ATC (refer below)	Clarification on the scope of the work	Refer to the ATC & drawings attached

17	29	60	Supply Installation Commissioning and Demonstration of RAPID COMPOSTING MACHINE  For all Organic waste – tress leaves, canteen, Horticulture waste, nutrient salts  Heating system - Warm air blower with thermostat to maintain temperature at 45-60 degrees C  Bio culture - Aerobic Thermophilic-based Bacteria  Time duration - Waste can be removed after 8-10 hours from machine for further maturation within a week  Material of vessel and shaft - SS – 304 of suitable thickness  Material of body cover - MS with powder coating of 60DFT  Waste chopper - Can share waste up to input of 50mm with output 1mm  Electric Motor for Chopper HP - Can be as per the design for effective functioning Electric Motor Power Rating for Air Blower - Compatible with blower capacity Power requirement - 440 V, 3-phase  PLC with HMI, Programming, real time waste processing data analysis, with Battery Charger  Motor and Blower should have overload and current protection  Odour Control Powder/agent available  Output compost Quality as per Fertilizer standards - Random test results should meet: PH-6.5-  7.2, Nitrogen(N)%—1,Phosphate(P)%—1,Potassium(K)%—0.8,C:N ratio 3:7  Shouldn't produce any Harmful gases like Ammonia, Sulphur di-oxide, Methane, Carbon dioxide as per stipulated guidelines of CPCB & SWM Rules, 2016  Emergency switch, Overload indication should be available  CAPACITY IN KGS PER BATCH - 200Kg Blower - 500cfm  Running hours per batch - 8-10hours  Area required in sq ft - < 300sft  Approximate Power Consumption per day - 1 nos  Approximate Power Consumption per day - 10 units per batch  Approximate Power Consumption per day - 10 units per batch  Approximate Overall Dimensions (L X W X H in ft) - Not exceeding 5X5x5	Clarification on the Make of the Rapid Composting Machine	Do proceed as per the specifications given in the tender. Vendor should ensure the compliance with the Pollution Control Board.
18	30	61	Design, supply, testing and installation of GAS MANIFOLD SYSTEM for the Kitchens at Mess block, Transit LPG line with GAS BANK with gas manifold (with working+standby cylinder provision) with required fittings like NRV, cylinder adapter (click on type) with flexible pipe. LPG cylinder bank of commercial LPG cylinder with: 'C' class seamless steel pipe conforming to IS:1239: 2" for gas bank pipe laying and 1" for rest pipe laying, with twin stage Pressure regulator - Upto 30 PSI (dial type) and supported with wall by providing adequate supports spacing not more than 1.5 mtr., fitted with flanges & accessories and isolation valves having ball valves of approved makes with LPG installation certificate having carbon steel body, SS ball and PTFE seat and all other fittings such as tees, reducers, unions, elbows etc. The piping shall be joined through welding by using welding electrode of ISI marked only. Care must be taken to prevent rusting of piping installation by providing red oxide primer coating and suitable sleeve of GI/wood shall be provided wherever the pipes are crossing through the walls/slabs etc. There should be a main gas shut off valve inside and outside the gas bank to isolate the LPG supply in case of emergency. The main pipeline should run upto the kitchen area and from there it will be distributed to all the kitchen equipment with a 2nd stage regulator of United make. There should be a pressure gauge with a needle control valve installed inside the kitchen. On completion, the LPG manifold complete with all accessories and individual components which are subjected to cylinder pressure shall be capable of withstanding a test pressure twice the working pressure. All the accessories, components used for installation of LPG pipeline system shall have the approval from Oil company i.e. IOCL/HP/BP. Isolation/shut off valves shall be ball valves with installation certificate for use in LPG pipelines and shall have carbon steel body, stainless steel ball and PTFE seat. The work includes supply, installatio	kitchen	Routing from the gas bank to the kitchen will be the scope of the vendor. The planning of the routing of gas pipeline to be in compliance with the existing building provisions as per site condition. The successful vendor needs to coordinate with the existing civil contractor.
19	1	11		Clarification was sought on Delivery period.	Delivery period will be as per the Tender Document
20	4 of GeM Bid	(a)		Clarification was sought on EMD Exemption for MSE Category	Exemption will be acceptable as per page 4 of Gem Bid Document