Ref.: PMD/Tender Inv/2020/1037

Sub.: Miscellaneous works at PMD Annexe building as per annexure A.

October 28, 2020

The quotation in sealed cover superscribed as "Miscellaneous works at PMD Annexe building as per annexure A." and addressed to the following officials should reach him/her by Speed Post/Registered Post through Indian Postal Service on or before the date and time mentioned below.

Shri. Abhijeet Kalaskar,
Scientific Officer 'D'
Powder Metallurgy Division,
BARC Vashi Complex, Navi Mumbai - 400703

On or before 10/11/2020

The scope of work is enclosed herewith. The tenderer should write in words as well as in figures, the rate quoted by him. All corrections must be attested by the dated initials of the tenderer.

The time for completion of work/job is three months. The same shall be reckoned from the date of issue of work order. The acceptance of the tender rests upon the undersigned with a right to reject the tender in full or part without assigning any reason.

Abhijeet Kalaskar
Scientific Officer 'D'
Annexure A

Installation of Aluminum mesh grills, shifting and re-installation of a resistance furnace, Epoxy painting of walls, and other miscellaneous works as per annexure at PMD Vashi.

Scope of work:

1. **Fabrication and fixing of anodized Aluminum mesh grill.**
   Aluminum mesh grill section thickness should at least be 1.25 mm. Aluminum mesh grill shall be fixed onto area in total of 595 Sq.ft.

2. **Making of cable trench:** A trench of size 500 mm x 500 mm x 20500 mm will be made as per the drawing attached herewith. This includes:
   a) Digging of RCC floor of size 700 mm x 700 mm x 20500 mm. Debris generated during the process will be shifted outside the PMD, Vashi campus.
   b) Metal reinforcement of zinc coated MS tor rod of size 12 mm thick as per the site requirement.
   c) The size of each inside metal reinforcement for supporting RCC shall contain 100 mm x 100 mm square pocket.
   d) RCC is to be lay down as per site requirement of thickness 150 mm along the wall of cable trench.
   e) Top peripherally covering with couple of 50 mm x 50 mm x 6 mm thick MS angle of ‘Z’ shape to support mild steel chequered plate cover. The joint will be firmly continuously welded.
   f) 20 NOs of mild steel chequered plate cover of size 1000 mm x 500 mm of equal size from made out of (75 mm x 40 mm ‘c’ channel and top cover made out of 6 mm thick MS chequered plate) as per the site requirement with both end lifting handle rods.

3. **Shifting of graphite heated vacuum resistance furnace.**
   A resistance furnace weighing 2 ton has to be shifted by about 7 m within the bay area of B2 building of PMD. This includes, firstly dismantling of existing water supply and compressed air connection and later on re-routing of power cable as mentioned below, making of new water connections, compressed air connection. Re-routing of power cable will require a trench to be made as per the drawing attached herewith.

3.1 **Shifting of furnace:**
   Furnace along with its subsystems (transformer, control panel) will be shifted to the designated place within the bay area. Note: Minor shifting of items located in the designated area has to be carried out prior to shifting of the furnace.
3.2 Supply of material and reinstallation of furnace

Party will supply necessary materials (e.g. electrical cable, water pipe lines, compressed air supply, etc.) for re-installation of the furnace after shifting of the furnace as per site requirement. Re-installation of the furnace shall be done. Supply of following materials will be done by the party for re-installation of the furnace.

3.2.1 Aluminum power cable (3.5 core x 185 sqmm, 15 m long) with two number of end terminations. 02 No of sets of Copper lugs for 3.5 core cable. 02 No of Glands for 3.5 core cable.

3.2.2 Copper strip (25 mm x 3 mm, 34 m long)

3.2.3 Single core (120 sq mm, 30 m long) copper cable with end terminations.

4. Shifting of 3 resistance heated muffle furnaces: 03 No of resistance heated furnaces has to be shifted and within the bay area of PMD annexe building, also these furnaces must be properly installed and commissioned on their new position along with corresponding requisite power supply.

5. Supply and installation of braded pipe and ball valves in Vacuum Hot Press system:

5.1 Supply of braded pipes (OD=12 mm) and its corresponding fittings for vacuum induction furnace will be done as per site requirement.

5.2 Replacing existing flow control valves (2’ size) with good quality ball valves (04 NOs) of brass in water connection pipe line of induction furnace in bay area.

6. Cooling tower refurbishing: a) Repairing of leakage with FRP coating. b) scrubbing rust on I-beams (300mm) of structure and applying yellow epoxy paint (1 coat of primer followed by 2 coats of epoxy paint.)

7. Servicing and repair of existing manual shutter will be done as per site requirement.

8. Shifting and refurbishing cylinder enclosure: a) dismantling of the cylinder enclosure from its current position and b) installing the same on a new position. Note: this job includes necessary refurbishment for the enclosure including painting.

9. Supply and installation of door: A PVC laminated water proof door of size 6’ 6” x 3’ 6” will be supplied and installed at annexe building terrace entrance.

10. Epoxy Painting of walls ceiling in B2 building of PMD.

The work involves:

- Scrubbing of wall: Prior to application of epoxy base and priming agents the walls and ceiling surface has to be properly scrubbed.

- Leveling with wall putty: After cleaning, the walls and ceiling surface has to be filled with wall putty / trowelling compound and the surface to be leveled.

- After leveling the walls & ceiling should be applied with one coat of Epoxy primer

- After drying (24 hrs.), the surface should be applied with 2 coats of epoxy paint

- Cleaning of the floor area after painting.

- Equipment located in this area are to be temporarily shifted or covered during the work.
• Chemical treatment for water leakage shall be done.

The paint should be evenly applied without lumps. The application of priming and final coat of base should be done with application of roller for fine and smooth finish. The walls/ceiling should get a smooth, even finish with glossy look. The materials should be of reputed make, viz. Berger/Asian etc.

Total Area to be painted: **4900 sq.ft.**

11. Water supply and compressed air connections will be provided to polishing machines placed on the 2nd floor of B2 building of PMD. This will require about 4 m of PU pipe (0.5’ size), ‘T’ type valve for the same.

**Note: Party must visit the site before sending quotation for the tender.**

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**Terms and Conditions**

1. Safety: All the personnel of the contractor deployed for the work should follow the safety guidelines while working. Any mishap/injury occurring to the deployed personnel due to unsafe work practice shall be contractor’s liability.

2. The contractor shall be sole responsible for any labor related dispute and any injury to contractor’s worker during execution of the job.
3. Security: Police verification certificates (PVC) are required for supervisor and all workers employed by the contractor inside BARC. Security instructions on entry of workers, working time etc. are to be followed strictly.

4. FIM is not applicable for the work.

5. Payment: No advance payment will be made. Payment shall be made on satisfactory completion of the job. Documentary evidence towards payment of GST (receipt/acknowledgement) may be furnished by the party. Income Tax @2% or as applicable at the time of billing will be deducted from your bill.

6. For any queries the party may contact Shri A. Kalaskar (Tel. No. 2788 7663) / Shri. Naresh Kolli (Tel. No. 2788 7152) on working day between 10:00 Hr. to 16:00 Hr.