

### **Vendor Meet for Procurement of Dust Suppression Machines**


Singareni Collieries Company Limited (SCCL) is interested in procurement of nine numbers of dust suppression machines for use in coal handling plants for effective suppression of fine particulate matter. Depending on the performance of the equipment, SCCL may procure some more machines in future.

In this connection, it is proposed to conduct a vendor meet in Hyderabad to study different types of dust suppression machines available in the market and to select ideal equipment for SCCL use. Broad technical specifications of dust suppression machines are enclosed for reference.

Though, it was proposed to conduct the vendor meet at SCCL Corporate Office, Kothagudem, the venue has been shifted to Hyderabad as per the request of some of the vendors. The vendor meet is now scheduled to be held at the following venue on 27.06.2013 at 10.00 AM.

**The Singareni Collieries Company Ltd.,  
Singareni Bhavan, Red Hills,  
PB. No. 18 Khiratabad  
PO, Hyderabad – 500004**

Interested parties are earnestly requested to participate in the vendor meet along with all requisite information including technical capabilities, product features, product superiority, price terms and conditions etc.

  
General Manager  
Dept. of Environment  
The S.C.Co.Ltd.,

## Technical Specification of Dust Suppression Machines

### **I) Technical details:**

- 1) The dust suppression system should be equipped with nozzle system which should suit both manual/auto regulation of water mist according to the requirements as per site air borne dust conditions.
- 2) The nozzles shall be made of brass/anti-rust proof material and the fitment of nozzle should be such that it can be easily removed and cleaned within short time by using regular tools by mazdoors.
- 3) The system shall be fitted with suitable booster pump integrated in the machine for developing adequate pressure at the nozzles.
- 4) The system should be fitted with required number of nozzles and suitably rated fan motor for getting the required throw of 50-60m under no wind conditions covering an area of approximately 500 sq.metres in a fixed position. All the nozzles shall be of same size to generate equal mist particles from each nozzle for uniform spraying.
- 5) The system should have facility to rotate approximately 0 to 300 degrees for all round spraying with a provision to set the degree of rotation as per site requirement. Provision shall be available to set the rotation of the system in automatic mode / with remote controller.
- 6) The system should have the facility for barrel titling from 0-45<sup>0</sup> from horizontal for spraying at 15 - 25m height.
- 7) The system should have option to operate by remote controller and all functions of the equipment should be available on the remote. The batteries used in the remote should be readily available in the market. In case of malfunctioning of the remote the equipment should be operated by the control panel on the equipment in local mode.
- 8) The equipment should be supplied with electrical cable of 25 m length.
- 9) The equipment should be supplied with Phase Inverter and should indicate in case the phase wires are wrongly connected. There should be a provision in the machine to invert the phase and should have single phase protection in such scenarios.
- 10) The machine should have a pressure gauge to measure the pressure developed at the nozzles end and a flow meter for actual measurement of water consumption per hour.
- 11) The machine should be tyre mounted (with provision for towing) and shall have minimum adjustable bars for increasing the height of the base as well as for the stabilization bars for balancing of the machine while working.
- 12) The machine should have a facility to drain the water from the entire system by single switch / plug or any suitable means.
- 13) The equipment should be designed to withstand max 10 bar pressure and should give optimum throw at 5 to 6 bar .
- 14) System should be fitted with suitable water filter system to avoid choking of nozzles. The system should be fitted with inline water filter at inlet point of water connection for removing bigger particles from entering pipeline as well as secondary strainer for smaller particulate matter (two-stage filtering).
- 15) The machine should not produce noise more than 70 dB at 5 to 7 mtr distance.

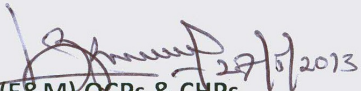
- 16) The equipment should be equipped with Hour Meter Reading meter to display the total hours of operation.
- 17) The Nozzle holder should be a single ring with easily removable nozzle facility for choke removal /replacement
- 18) The Nozzle frame and nozzles should be made with laser cut machine for having smooth cut and finish and ruggedness for long life.
- 19) The machine frame and all metal parts including the cone should have high quality powder coating for extended life of machine.
- 20) The machine should have a facility of locking system for cone tilting.
- 21) The fan hub should be of stainless steel / Brass.
- 22) The Fan blade Tip should have resistance to vibration to withstanding wind flow in different seasons.
- 23) The size of the water molecule in the mist should arrest dust of maximum size 40 Micron particle

**II) Safety requirements:**

- 1) The machine should have circuit Breaker protection for the drives of Fan, oscillation and water pump.
- 2) The system should have earth leakage protection (80-750 mA).
- 3) In case the Water pump runs out of water, the system should trip in order to prevent damage to the whole system.
- 4) The machine should have 4 hooks for easy lifting.

**III) Requirement of Vendor:**

- 1) The vendor should have supplied similar machines to mines or any other industry and are being used for more than one year in order to ascertain the consistency of its performance. Necessary documents to be provided for verification PO / Order Copy / Customer satisfaction letter.
- 2) The vendor should demonstrate the technical parameters at site in case if he gets firm order from SCCL.
- 3) The firm shall quote for Annual Maintenance Contract (with spares) for a period of three years and this price will be added to the equipment price for arriving the L-1 status.
- 4) On intimation from the site regarding any breakdown the firm shall depute their representative within 24 hours for rectification of the same.

  
Chief (E&M) OCPs & CHPs 27/5/2013  
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