Date: 3rd Dec 2014

Tender Ref: 77/14/6196/KVS

Project: DUST EXTRACTION SYSTEM for 3.0MTPA NMDC Nagarnar RMHS Plant

Pre-Bid Clarification

Bidders to take care following changes and prepare their offer accordingly.

1. **Calculation for Bag filter capacity at JH – 60:** Quantity of dust 1700 CMH for height of fall to be considered for both feed point at conv. J61 AC1 from conv. J60C1 & J60C2 as the both feed point will work simultaneously. Accordingly the bag filter capacity for JH-J60 shall be **revised to 22200 CMH from 19400CMH indicated** in the DBR.
2. **Calculation for Bag filter capacity at JH -67:** In JH -67_2nos. vibrating feeder will work simultaneously, accordingly 2 no. height of fall and 2nos. feed point at conv. J67 AC1 shall be considered for calculation of air quantity for feeding to conveyor J67 AC1. Accordingly the bag filter capacity for JH-J67 shall be **revised to 27800 CMH from 19400CMH indicated in the DBR.**
3. **At JH -61A:** Motorized damper required at the application point of screen discharge and the both feed point on conv. J61C1 shall also be considered. However, bidder to also note that exact qty of motorised & manual dampers shall be decided during detail engg. based on actual requirement and MECON's approval on the scheme.
4. Bidder to consider Rotary air lock (RAL) after slide/ RPG gate at the bottom of each storage hopper for smooth discharge of materials to pug mill of each Bag filter system. Accordingly, bidder to design their system and bag filter tower.
5. Bidder to note with these changes the revised minimum capacity of bag filter & Fan capacity for all JH are as follows:

Junction House	Minimum Capacity of Bag Filter	Minimum Capacity of Centrifugal Fan considering min. 10% margin over Bag filter capacity
JH-J50	24100 CMH	26600 CMH
JH-J67 (revised)	27800 CMH	30600 CMH
JH-J60 (revised)	22200 CMH	24500 CMH
JH-J61	12100 CMH	13400 CMH
JH-61A	54800 CMH	60300 CMH

Notes:

Bidder to note that the capacities of Bag filter & Fan indicated above are bare minimum which bidder must consider. However, if bidder feels the suction volume used to calculate the Bag filter capacity is on lesser side based on bidder's experience, system performance to be delivered / guaranteed, flow of material then bidder shall consider higher suction volume accordingly. But in no case the capacity of bag filter & fan shall be lesser than indicated above.

Also, bidder to note that at point of project execution, especially during PG test, successful bidder shall not take the above capacity as a reason for not delivering system performance hence BHEL once again re-iterates that as a system designer bidder to design the best and effective system considering the material flow as capacities indicated above are minimum.

Other things remain un-changed as indicated in the enquiry specification and the enclosures attached with enquiry specification (NIT document).

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1. DES-1 (Dust Extraction System for JH-60):

Sl. No.	Suction Point Location	Belt Width (mm) x Belt Speed (m/sec) x Capacity (TPH)	Exhaust volume Cu.M/Hr. per metre of belt width	Actual Required Exhaust volume Cu.M/Hr.	Due to Fall Ht.	Total Volume
a	J60 C1 Belt conveyer discharge	800 x 1.5m/sec x 200 TPH	2790	0.8 x2790 =2232	0	2232
b	J60 C2 Belt conveyer discharge	800 x 1.5m/sec x 50 TPH	2790	0.8 x2790 =2232	0	2232
c	J61 AC1 Belt conveyer common Skirt Front	1000 x 1.5m/sec x 250 TPH	2790	1 x 2790=2790	0	2790
d	J61 AC1 Belt conveyer common Skirt center	1000 x 1.5m/sec x 250 TPH	2790	1 x 2790=2790	0	2790
e	J61 AC1 Belt conveyer common skirt back due to height of fall more than 1m. from Conv J60C1 & J60C2	1000 x 1.5m/sec x 250 TPH	0	0	2 x 1700 (1m > FH)	3400
f	**TOTAL FLOW FOR DES-1**					**13444**
g	**Fine dust Factor @ 1.5**					**1.5*13444= 20166**
h	**with 10% margin**					**22183**

Bag Filter & Fan Selected for DES-1 :		
Capacity	:	**22200 Cu.M/Hr. (revised 3rd Dec 2014)**
Fan Static Pressure	:	Min. 200 mm W.G. (shall be finalised as per pressure drop calculation after finalisation of duct layout drg.)
Quantity	:	One (1) Set

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5. DES-5 (Dust Extraction System for Hammer Crusher @ JH-67):

Sl. No.	Suction Point Location	Belt Width (mm) x Belt Speed (m/sec) x Capacity TPH)	Exhaust volume Cu.M/Hr. per metre of belt width	Actual Required Exhaust volume Cu.M/Hr.	Due to Fall Ht.	Total Volume
A	J67 VF1 / 2 / 3 Vibro feeder discharge	J67 AC1 capacity as 700 TPH, assumed that both crusher run at a time)	2790	1.2 x 2x 2790 =6696	0	6696
B	Feed on J67 A C1 conveyer skirt from any two hammer mill crushers + due to height of fall more than 1m.	1200 x 3m/sec x 700 TPH	2790	2x 1.2 x 2790 =6696	2 x 1700 (1m > fall Ht)	10096
C	**TOTAL FLOW FOR DES-5**					**16792**
D	**Fine dust Factor @ 1.5**					**1.5*16792= 25188**
E	**with 10% margin**					**27707**

Bag Filter & Fan Selected for DES-5 :		
Capacity	:	**27800 Cu.M/Hr. (revised 3rd Dec 2014)**
Fan Static Pressure	:	Min. 200 mm W.G. (shall be finalised as per pressure drop calculation after finalisation of duct layout drg.)
Quantity	:	One (1) Set

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