BNPM/NCB/SLUDGE DRYER/0905/2020-21		
	CORRIGENDUM NO. 1	

CORRIGENDUM No. 1, DATED 08.02.2021

FOR

<u>Design, Supply, Installation, Commissioning, Performance Test of Sludge Drying System</u> <u>with all accessories at BNPMIPL, Mysuru</u>

E Tender No: BNPM/NCB/SLUDGE DRYER/0905/2020-21, Date: 08.01.2021

Client: BANK NOTE PAPER MILL INDIA PRIVATE LIMITED, MYSURU, KARNATAKA



Administrative Office Building,
Entry Gate-1, Paper Mill Compound,
Note Mudran Nagar,
Mysuru-570003



Scope of this Corrigendum: Detail of Corrigendum:

1. Clarification:

Sr.	Reference	Clarification sought by prospective Bidders	Response from BNPM
No.	Clause of the		
	Tender		
1.	Sec – VII , Technical Specification and Scope of Work	Clarify about movable inverted bucket hoist system, type of system.	A conveying system for transferring filter press cake from the filter press to the dryer shall be provided, the bidder may select the appropriate technology / type of conveyor after checking the space availability at site (participating bidders may visit the site to ascertain the space availability). The conveyor shall be easily removable/detachable so that in case of nonfunctioning of dryer existing procedure shall be followed for disposal of the sludge. The conveying operation shall be fully automatic.
2.	Sec – VII , Technical Specification and Scope of Work	Clarify about Briquette Press/ Machine, type of mechanism.	The bidder may select any suitable mechanism for forming the briquettes out of the dried sludge. Transfer of dry sludge from dryer to the briquetting machine and the operation of briquetting machine should be automatic.
3.	Sec – VII , Technical Specification and Scope of Work	Sludge de-flaker / disintegrator requirement	The filter press cake formed in the filter press would be in the form of marginally hard cake of thickness approx. 100mm. The Deflaker/disintegrator shall be used to convert this cake into a free flowable sludge into the drier.
4.	Sec – V, SCC	If any project management Consultants is there for this project	Company has not appointed Project Management Consultant for this project.
5.	Sec – VII , Technical Specification and Scope of Work	Whether the project to be executed on Turnkey basis inclusive of all works.	Project is to be executed as turnkey basis as per scope of work provided in tender (Ref Sec – VII).
6.	Sec – VII , Technical Specification and Scope of Work	Working hours of the sludge plant is to be specified	Sludge plant is operated for minimum 22 Hours / Day.



Sr.	Reference	Clarification sought by prospective Bidders	Response from BNPM
No.	Clause of the Tender		
7.	Sec – VII , Technical Specification and Scope of Work	Type of dryer required: Rotary, paddle type or otherwise.	Bidder has to select suitable technology wherein Primary sludge can be processed without any hurdles and achieve the end result as per tender specification and same shall be accommodated in the given area: 5m (wide) x 10m (length).
8.	Sec – VII , Technical Specification and Scope of Work	Whether there are any approved vendors for sludge dryer, Briquette press and associated equipment.	List of approved vendors for various sub components are already provided in the tender. The bidder shall select suitable makes for the item makes no mentioned in the tender after obtaining approval from BNPM.
9.	Sec – VII , Technical Specification and Scope of Work	Please confirm the MOC of the sludge dryer, Briquette press and associated equipment as it will have a bearing on the cost.	
10.	Site Inspection;	Any site visit can be arranged for the Participants and if yes please specify the date and time to visit plant.	own cost and they may obtain all necessary information as to risks, contingencies and other circumstances which may influence or alter their tender before submitting their offer. The bidders shall be deemed to have full knowledge of the work involved, whether they inspect it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. Bidders to submit negative RT-PCR test (for pandemic covid – 19) certificate before entering BNPM premises. RT-PCR test should be carried out after reaching Mysore from any designated hospital of Mysore. Site visit may be carried out within 22.02.2021. (Amended as clause 15.a, Site Inspection Sec V)
11.	Sec – VII , Technical	Degree of automation required for the Sludge Dryer System.	System in general shall be fully automated. Process from sludge collection at filter

Sr. No.	Reference Clause of the Tender	Clarification sought by prospective Bidders	Response from BNPM
	Specification and Scope of Work		press to Briquette formation shall be automated.
12.	Sec – V, SCC	Whether JV is allowed for the tender or not.	JV is not allowed. Sub-Contracting: Amendment to Sr No 5 of SCC against GCC clause 17,18: Sub-contracting is generally not allowed, however on prior approval from BNPM, sub-contracting may be allowed.
13.	Sec – III, SIT, Sec– II, GIT	In case a participant is L1 how much time you will take to issue the LOI after date of opening of the price bid.	
14.	Sec – VII , Technical Specification and Scope of Work	What is the capacity of the Briquette press in Kg/hr and working hours for the same.	Capacity of briquette press shall be least 200 kg/h; working hours 22 Hrs. and the dried sludge shall be conveyed automatically to the Briquette press.
15.	Sec – VII , Technical Specification and Scope of Work Page No: 43 of 80, Point No:19	What is Paper Equalization Tank? For Taking ducting 100 meter from Drying plant who will construct pipe rack on site? MESL is not in the favor of providing scrubber. Bag house will ensure efficient particle removal before exhaust. Please comment.	Paper equalization tank is providing retention of 8 hours for paper effluent prior to treatment. Existing pipe rack may be utilized, additional supports if required shall be provided by the bidder. Bag filters may be considered instead of scrubber (only when exhaust contains only flue gas and moisture).
16.	Sec – VII , Technical Specification and Scope of Work	Planned site layout to understand exact requirements is requested. As per provided drawing on page no. 49 how much wide we can use for placing Drying system?	Bidder may visit BNPM, Mysore site for



Sr. No.	Reference Clause of the Tender	Clarification sought by prospective Bidders	Response from BNPM
	Page No. 42 of 80, Point No 13.		
17.	Sec – VII , Technical Specification and Scope of Work Page No. 42 of 80: Point No 12	Dryer Chimney does not come under any Norms as there is no combustion and burning in Dryer. Did BNPML conducted any stoichiometric combustion of the primary sludge?	
18.	Sec – VII , Technical Specification and Scope of Work	Did BNPML carried out briquetting with dried primary sludge with any reputed manufacturer?	No, however BNPM is producing briquettes made out of cotton fine and shredded cotton paper. In primary sludge cotton fibres / fines are major constituents.
19.	Sec – VII , Technical Specification and Scope of Work	Type of sludge is Chemical or biological sludge:	Primary Sludge containing predominantly cotton.
20.	Sec – VII , Technical Specification and Scope of Work	Scheme of ETP Plant:	Basic scheme is provided with tender, Plant Layout is attached as Annexure. A, Bidder may visit Bnpm, Mysore site to analyze the process if required.
21.	Sec – VII , Technical Specification and Scope of Work	Source of waste water :	Paper Mill and Pulp Mill Effluent



Sr. No.	Reference Clause of the Tender	Clarification sought by prospective Bidders	Response from BNPM
22.	Sec – VII , Technical Specification and Scope of Work	Sludge characteristics is required:	Attached as Annexure B. However Bidder may analyze the sludge as per the requirement
23.	Sec – VII , Technical Specification and Scope of Work	Sludge Sample required :	Sludge sample shall be given at free of cost, however loading and transportation cost shall be borne by the bidder.
24.	Sec – VII , Technical Specification and Scope of Work	Moisture content after sludge drying to be mentioned less than 20%. Additional more steam will require to achieve less than 15%	Tender requirement to be met.
25.	Sec – VII , Technical Specification and Scope of Work	Distance from Existing steam line to sludge dryer area is requested	Not applicable as steam is not using as heating mode
26.	Sec – VII , Technical Specification and Scope of Work	Distance from Sludge dryer area to ETP area for return condensate line is requested.	Not applicable as steam is not using as heating mode.
27.	Sec – VII , Technical Specification and Scope of Work	Length and width available for 50 M2 Area is requested	Length x width : 5m x 10m
28.	Sec – VII , Technical Specification and Scope of Work	Key plan area is requested where sludge dryer is to be installed.	Attached as Annexure A. For further clarification, bidder may visit BNPM, Mysore site for any clarification.
29.	Sec – VII , Technical Specification and Scope of Work	Is there any Civil works like building for sludge dryer or structural MS work for covering of sludge dryer system?	As per tender specifications and scope of work. Ref Sec – VII – Technical Specification & Scope of Work.



Sr.	Reference	Clarification sought by prospective Bidders	Response from BNPM
No.	Clause of the Tender		
30.	Sec III – SIT, Sr No 4	Please note that same is not applicable. As per prevailing laws, Only GST will be applicable.	Refer Sec III- SIT, It states: No Change except the taxes will be applicable as per GST rules (GIT: Clause 12.7 to Clause 12.13)
	Sec – VII , Technical Specification and Scope of Work	Refer to pre-bid discussions meeting: It is understood that Briquetted product of sludge dryer is further going to be used in boiler and / or TFH.	
		Please note that sludge will be generated of 180 – 200 Kg / Hr. Dried sludge fuel value may not be more than 3000 Kcal / Kg. Hence dried sludge will have heat content of 600000 Kcal / hr and one can generate saturated steam of around 750 – 800 Kg / Hr depending upon feed water temperature to Boiler.	
31.		Dried sludge in loose condition can be burnt well in boiler and one can get more thermal efficiency of boiler / TFH, if it can be burnt in fluidized bed TFH and / or Boiler. And in that case one can avoid briquetting machine and dried sludge can be transported through pneumatic dense phase conveying system and / or through mechanized screw conveyor. Please note that dried sludge in loose condition can be fed through mechanized screw feeder and bunker of 5 m3 capacity.	
		Please note that said sludge dryer system may require $500-550~{\rm Kg}$ / Hr of steam for water evaporation of 420 KG / HR and for sludge feed rate of 600 Kg / Hr.	
		Hence dried sludge prepared out of offered sludge drier will be sufficient to meet heat load of offered sludge dryer.	
		Plant start-up can be done with briquettes available with BNPM and once enough quantity of dried sludge will be generated then same will be used in boiler / TFH dedicated for this project. Only thing is that dried sludge	



Sr.	Reference		Clarification sought by prospective Bidders	Response from BNPM	
No.	Clause of	the			
	Tender				
			should have GCV value of more than 3000 Kcal		
			/ Kg.		
			Please advise.		
			We refer to pre-bid discussions meeting we		
			had on today instant. Please note that we have		
			been given to understand that Briquetted		
			product of sludge dryer is further going to be		
			used in boiler and / or TFH.		
			Please note that sludge will be generated of		
			180 – 200 Kg / Hr. Dried sludge fuel value may		
			not be more than 3000 Kcal / Kg. Hence dried $$		
			sludge will have heat content of 600000 Kcal /		
			hr and one can generate saturated steam of		
			around 750 – 800 Kg / Hr depending upon feed water temperature to Boiler.		
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			Dried sludge in loose condition can be burnt		
			well in boiler and one can get more thermal		
			efficiency of boiler / TFH, if it can be burnt in		
			fluidized bed TFH and / or Boiler. And in that case one can avoid briquetting machine and		
			dried sludge can be transported through		
			pneumatic dense phase conveying system and		
			/ or through mechanized screw conveyor.		
			Please note that dried sludge in loose		
			condition can be fed through mechanized		
			screw feeder and bunker of 5 m3 capacity.		
			Please note that said sludge dryer system may		
			require 500 – 550 Kg / Hr of steam for water		
			evaporation of 420 KG / HR and for sludge $$		
			feed rate of 600 Kg / Hr.		
			Hence dried sludge prepared out of offered		
			sludge drier will be sufficient to meet heat load		
			of offered sludge dryer.		
			Dlant start up can be done with beignetter		
			Plant start-up can be done with briquettes available with BNPM and once enough		
			quantity of dried sludge will be generated then		
			same will be used in boiler / TFH dedicated for		
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Sr.	Reference	Clarification sought by prospective Bidders	Response from BNPM
No.	Clause of the Tender		
		this project. Only thing is that dried sludge should have GCV value of more than 3000 Kcal / Kg.	
		Please advise.	
32.	Sec – VII , Technical Specification and Scope of Work	Please allow us to use Eastman company make Therminol 55 and / or Shell company make S2 grade Thermic fluid as both the thermic fluids are better in terms of performance and reliability.	As per tender specification.
33.	Sec – VII , Technical Specification and Scope of Work	Please note that air based soot blowing system will be given.	Bidder may consider the same for cleaning of heat transfer surfaces.
34.	Sec – VII , Technical Specification and Scope of Work	Please note that we will consider 5 M3 capacity of ground hopper and 15 M3 capacity of Main fuel bunker and dried sludge as well as Briquette may be transported to main fuel bunker from ground hopper by bucket elevator system and briquette / sludge shall be fed from bunker to TFH furnace through Screw feeder system. Please advise same is in line of your requirement. Please note that bottom ash will be handled manually and ash collected from APH, MDC as well as Bag house hoppers will be mechanically conveyed ash silo of 5 m3 capacity. Ash from ash silo shall be conveyed to remote location through trolleys by BNPM.	Bidder may visit the site and subsequently design as per tender requirement. Suitable Ash Handling System shall be designed to collect / remove the ash from a single point.
35.	Sec – VII , Technical Specification and Scope of Work	Please note that we will consider 25 meter high guy wire rope type MS Chimney and height clearance shall has to be obtained by BNPM from local pollution board authority as they have got discretionary power while dictating about chimney height to end users.	As mentioned in the tender the liasioning with relevant government agencies would be in the scope of the bidder. The chimney shall be properly supported (structural design for the chimney shall be dully vetted by a government agency).



Sr.	Reference	Clarification sought by prospective Bidders	Response from BNPM
No.	Clause of the Tender		
36.	Sec – VII , Technical Specification and Scope of Work	We request BNPM to obtain KSPCB related approval in their scope. All the technical assistance for CPSPL supplied items with respect KSPCB related approval shall be rendered by CPSPL.	Shall be in scope of bidder as mentioned in tender.
37.	Sec – VII , Technical Specification and Scope of Work	Please note that SPM emission level will be less than 50 Mg / Nm3 at the inlet of Chimney and at the outlet of Bag House. Further please note that Nox emission will be less than 400 PPM as we propose to conduct combustion at lower than 900 Deg C in TFH furnace and hence NOx generation will not be substantial. NOx generation takes place prominently at higher combustion temperature than 1100 Deg C. Further please note that since TFH capacity shall be of 5 – 6 Lac Kcal / Hr, we have not envisaged any treatment for SOx reduction. And hence we do not foresee to take flue gas away by 100 meters for scrubber application. If you want SOx scrubber, then same can be installed locally and it will be cost beneficial solution. Please advise.	The flue gas exhaust parameter needs to meet PCB Norms mandatorily .Chimney needs to be designed meeting the PCB norms.
38.	Sec – VII , Technical Specification and Scope of Work	Please add Heatex make for TFH unit as they have supplied more than 3000 nos. of TFH units of varying capacities from 1 Lac Kcal / Hr and up to 90 Lac Kcal / Hr.	Clause No XII : Approved Makes : Under Sec –VII: Technical Specification and scope of work is amended as : Item: Thermic Fluid Heater Make: Thermax/ Maxima/Heatex/ Alternate make with prior approval of BNPM.
39.	Sec – VII , Technical Specification and Scope of Work	As per the tender document, please reconfirm the civil part exclusion from bidder (We only provide the civil work like loading details,	Civil work is in BNPM scope. However bidder should provide the necessary detail like civil drawing, foundation



Sr. No.	Reference Clause of the Tender	Clarification sought by prospective Bidders	Response from BNPM
	render	foundation and structural drawingsPage No.47)	requirement, structural design etc as required in tender.
40.	Sec – VII , Technical Specification and Scope of Work	Shall we take the sludge system design as 500Kg/hr, kindly confirm.	Ref Sec – VII, Technical Specification & Scope of Work.
41.	Sec – VII , Technical Specification and Scope of Work	Whether a fully automated system is required?	System in general shall be fully automated. Sludge collection at conveyor to till Briquette formation shall be automated.
42.	Sec – VII , Technical Specification and Scope of Work	As per the market status, shall we go for 4Lakh Kcal/Hr boiler as a thermic heater.	It is bidder specific. Thermic heater shall suit to the requirement & shall be minimum 20 % additional capacity.
43.	Sec – VII , Technical Specification and Scope of Work	Kindly confirm the fuel of the boiler is in bidder scope upto the commissioning stage.	Briquettes as mentioned in the tender are available at site and the same shall be utilized by the bidder.
44.	Sec – VII , Technical Specification and Scope of Work	Is there any working methodology described by you for briquette press system & sludge deflaker system.	The bidder shall select an appropriate technology for briquetting and sludge deflaking.
45.	Sec – V, SCC, Sr No 2.	Is there any possibilities to revise the payment terms as per the bidder std.	No , as per tender terms only.
46.	Sec – VII , Technical Specification and Scope of Work	Shall we use bunker tank for waste carrying from filter press to conveyor system.	Bidder may visit BNPM, Mysore site for and subsequently design as per tender requirement. Suitable Ash handling system shall be designed to collect/remove the ash from a single point.
47.	Sec – VII , Technical Specification and Scope of Work	Please ensure the distance of the existing system to our proposed one.	Drawings already provided with the tender. Bidder may visit BNPM, site for taking any additional measurement.



Sr. No.	Reference Clause of the	Clarification sought by prospective Bidders	Response from BNPM
	Tender		
48.	Sec – VII , Technical Specification and Scope of Work	commissioning (for feeding the briquettes to	BNPM will arrange required labours at the time of commissioning for feeding the briquettes to boiler.

2. Extension of Bid submission due date:

<u>Sl</u>	<u>Previous Provisions</u>	Action/Clarification incorporated in this Corrigendum						
<u>No.</u>								
1.	Offer Submission Closing Date: 08.02.2021 at 14:30 Hours	Offer Submission Closing Date: 01.03.2021 at 14:30 Hours						

3. Revision:

<u>Sl</u>	Previous Provisions	Action/Clarification incorporated in this Corrigendum
<u> 51</u>	1 Tevious F Tovisions	Action/ ciai incation incorporated in this corrigendum
No.		
1.	Sec – XI, Price	To be read as:
	Schedule , Capacity of	Sec – XI, Price Schedule , Capacity of the intended Sludge Drying System was
	the intended Sludge	mentioned as 500 Kg/Hr.
	Drying System was	Revised Price Schedule is enclosed as Annexure 1.
	mentioned as 500	Bidders have to submit their bid based on the revised price schedule (as per this
	m3/Hr.	corrigendum) only. If any bidder has already submitted the bid with old price
		schedule then the bidder has to submit their bid again in revised price schedule
		else on non-submission of price bid with revised price schedule the bid will
		be considered as non-responsive and will not be considered for evaluation.
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NIT, Sec – I, To be read as: 2. Tender processing Tender processing fees (Non-refundable): Rs. 5000/- +Taxes. (Non-Bidders have to submit their bid based on the revised Tender Processing Fee of fees refundable): Rs. Rs. 5000/- + Taxes only. If any bidder has already submitted Rs. 3000/-+ Taxes 3000/as Tender Processing Fee then balance amount of Rs. 2000/-+Taxes must be +Taxes.(Existing) submitted through e tender portal (www.tenderwizard.com/BNP). For any clarification bidder may contact Tender Wizard HelpDesk No: 9686115309. On non-submission of Total Tender Processing Fee of Rs. 5000/-+Taxes, the bid will be considered as non-responsive and will not be considered for evaluation.

Details provided in this corrigendum shall override those mentioned in the tender no. BNPM/NCB/SLUDGE DRYER/0905/2020-21, Date: 08.01.2021

Except for details mentioned herein, all other details contained in the Tender no. BNPM/NCB/SLUDGE DRYER/0905/2020-21, Date: 08.01.2021_shall remain unchanged.



ANNEXURE 1: REVISED PRICE SCHEDULE

Sub: Revised Price bid for Design, supply, installation, commissioning, performance test of Sludge Drying System with all accessories at BNPM Plant, Mysuru

Ref: Tender No. BNPM/NCB/SLUDGE DRYER/0905/2020-21, Dated 08.01.2021

We have received and understood the above tender enquiry and are pleased to submit our price bid as under:

Sc h. N o.	Description	UO M	Q ty	HS N/ SA C	Basic Unit price (INR)	P&F, Freigh t & Transi t Insura nce & any other charge s(if any)	Unit Price (incl. of P&F, Freight, Transit Insurance & any other charges (if any) excl. of GST) (INR)	GST (%)	GST on Unit Price (INR)	Total Unit Price (incl. of GST) (INR)	Less: Input Credit (GST) (INR)	Effective Unit Price (net of input tax credit) (F.O.R BNPM Mysore) (INR)	Total Effective price (net of input tax credit) (F.O.R BNPM Mysore) (INR)
			A		В	С	D=B+C	Е	F=D *E	G=D+F	Н	I=G-H	J=I*A
1	Design, Supply of 500 Kg/Hr Sludge Drying System with all accessories like conveyor system, sludge de-flaker/ Disintegrator , Briquetting system etc. – (As per Technical Specification and Scope of Work – Sec – VII)	LO T	1										

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ANNEXURE 1 : REVISED PRICE SCHEDULE												
	Installation , Commissioning ,											
	Performance Test of 500 Kg/Hr Sludge											
_	Drying System with all accessories –like	LO	1									
2	conveyor system, sludge de-flaker/	T										
	Disintegrator , Briquetting system etc.											
	(As per Technical Specification and Scope											
4 Total Effective price (Including Freight, P&F, Insurance, FOR BNPM, Mysore Basis, i.e net of input tax credit) (INR)												
5 Total Effective price (Including Freight, P&F, Insurance, FOR BNPM, Mysore Basis, i.e net of input tax credit) in word												

- 1. Effective price will be calculated based on Total price i.e. (Unit price, P&F, Insurance, Freight & GST amount) less input GST amount. L-1 status shall be decided considering total effective price.
- 2. Bidder shall note that no extra cost will be considered over and above the price quoted in the price bid and hence bidder shall ensure that price submitted in the price bid is quoted considering complete technical specifications as defined in the tender document.
- 3. Bidder shall be eligible to pass on the input credit which has been deducted from Total price to arrive at Effective price.

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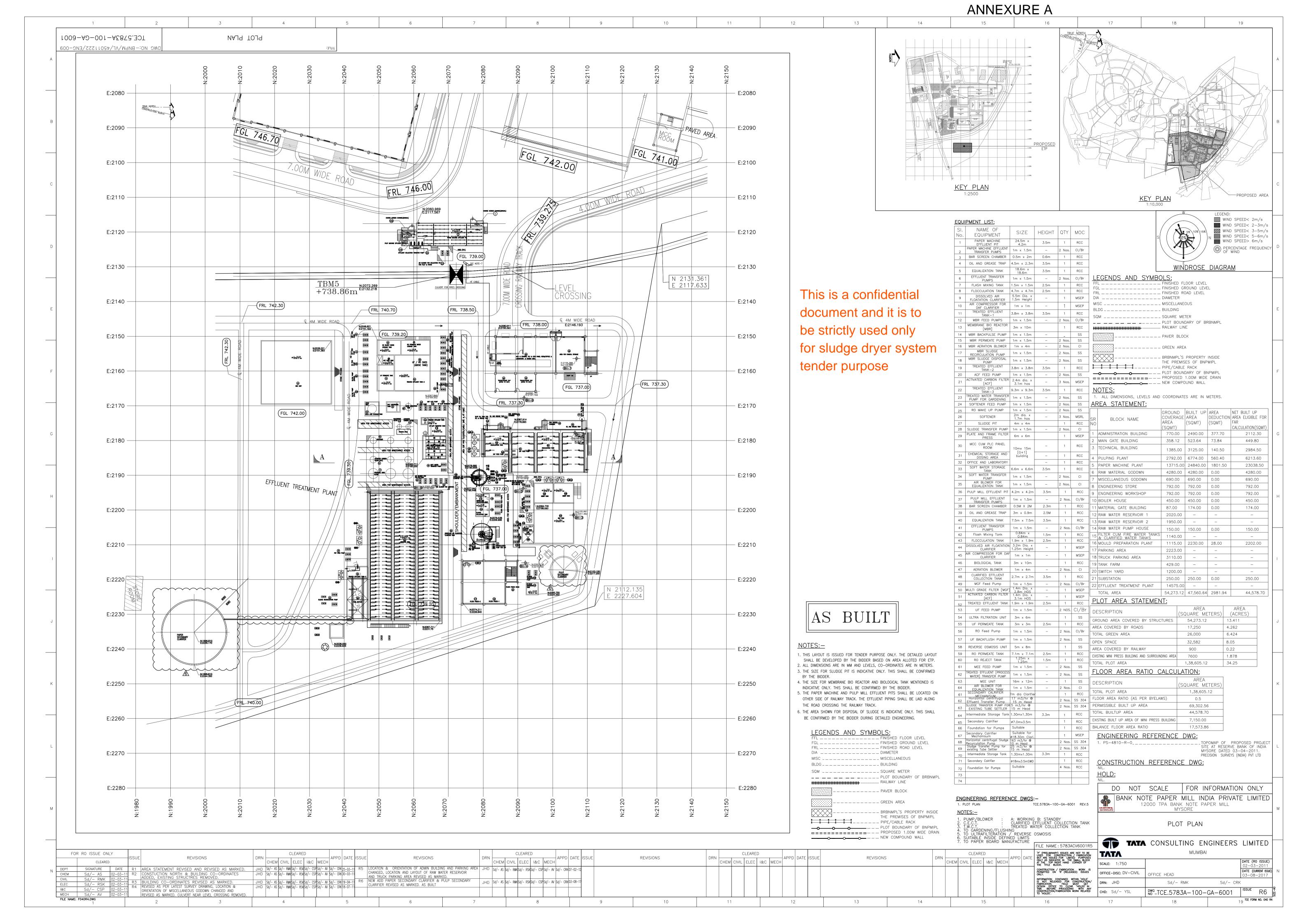
Signature with Date

Note:

- i) Price should be quoted exactly as per the format given above; Price bids with conditions / Counter conditions are liable for rejection.
- ii) Multiple / Variable rate for single item, would lead to rejection of offer.

(To be signed & stamped and submitted along with Techno-commercial Bid Part -1)

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ANNEXURE B

Details of filter press cake to be dried.

SI No	Parameter	Unit	Value
01	Gross Calorific value (air dry basis)	kCal/kg	3800 (aprox.)
02	Ash (air dry basis)	%	8.65 (aprox.)
03	Carbon	%	54 (aprox.)
04	Sulphur	%	0.95 (aprox.)
05	Hydrogen	%	6.51 (aprox.)
06	Nitrogen	%	0.58 (aprox.)
07	Oxygen	%	30 (aprox.)

The participating bidder is requested to verify the above values by carrying out the analysis of filter press cake at their end.