



झारखण्ड राज्य प्रदूषण नियंत्रण पषर्द,

JHARKHAND STATE POLLUTION CONTROL BOARD

T.A. DIVISION BUILDING (GROUND FLOOR), H.E.C., DHURWA, RANCHI -834004

Phone.:2400902, 2400852, 2400851, Fax:0651-2400850,2400138: www.jspcb.org

Ref. No

Ranchi, Dated

TENDER NOTICE

FOR SETTING UP OF BIO-MEDICAL WASTE TREATMENT FACILITY AND ITS OPERATION FOR SIX YEARS CONTINUOUSLY AT RANCHI, JAMSHEDPUR, DHANBAD, DALTONGANJ AND DEOGHAR

The Jharkhand State Pollution Control Board invites sealed tenders from Indian proponents for expression of interest for setting up and run on BOO (Build Own and Operate) basis of CBWTF in state of Jharkhand at five different locations i.e. at Ranchi, Dhanbad, Daltonganj, Jamshedpur and Deoghar, who are having a minimum of three years experience in operating a CBWTF and have setup at least one CBWTF anywhere in India which is running properly presently with a annual turnover of at least Rs. 15,000,000 (Rupees fifteen millions only) and having ISO- 14001 certificate for operating a CBWTFs.

2. The tender documents along with detailed specifications of the equipments can be obtained from the office of the Member Secretary, Jharkhand State Pollution Control Board, Ranchi by post or in person by producing letter of authority of the firm in duplicate.
3. The cost of tender document of Rs. 1000/- (if it is down loaded from web site) may be paid in the form of demand draft in favour of: "**Member Secretary, Jharkhand State Pollution Control Board**" payable at **Ranchi**. The request bidding documents (tenders) sent by post will be accepted strictly by 2.00 p.m. of 09-08-2010.
4. Tender document is also available on the website of Jharkhand State Pollution Control Board. www.jspcb.org. It can be downloaded from this website.
5. Sale of tender document - From 19-07-2010 to 07-08-2010 on all working days between 11.00 a.m. to 5.00 p.m.
Price of tender document - Rs.1000 /- (Rupees one thousand only)
Last date of submission - At 2.00 p.m. of 09-08-2010.
Date of opening of tender - At 4.00 p.m. of 09-08-2010.
6. A central subsidiary upto 25% of the total cost of the project will be provided to the entrepreneur with an equal amount of matching grant from State Government. This will include cost of land also.
7. The Member Secretary, Jharkhand State Pollution Control Board reserves the right to accept or reject any or all the bids without assigning any reason thereof.
8. The proponent are advised to go through the guidelines for establishing and operating a CBWTF available on the CPCB Website : www.cpcb.nic.in

Member Secretary



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JHARKHAND STATE POLLUTION CONTROL BOARD

T.A. DIVISION BUILDING (GROUND FLOOR), H.E.C., DHURWA, RANCHI -834004
Phone.:2403852, 2403851, Fax:0651-2400850

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1.0 GENERAL TERMS AND CONDITIONS

- 1.1 This documents contains the following :
- (i) General terms and conditions of bid
 - (ii) Terms and conditions for submission of bid
 - (iii) Payment terms
 - (iv) Settlement of dispute
 - (v) Application form
 - (vi) Undertaking
 - (vii) Bid form
 - (viii) Quantity of equipments and locations of installation
 - (ix) Detailed specifications of the equipments required for setting of CBWTF.
- 1.2 The tender document is not transferable by the purchaser. The bid form may be used for bidding. However, the additional sheets containing the same proforma may be used for each item. Each sheet including that provided by the Board with this document must be signed by the bidder. The price bid must be in the form provided herewith.
- 1.3 The tender will not be accepted from the firm to whom the document is not issued by the Board. The bid form without tender fee will not be accepted in case of tender document downloaded from the website.
- 1.4 The Board takes no responsibility for delay or non receipt of tender documents sent by post either way and also reserves the right to accept; or reject any or all the tenders in part or full without assigning any reason thereof.
- 1.5 No bid document will be sold after the last date of sale of tender document or between the extended period of opening date, if any. Downloaded tender document will be accepted with tender fee till the date of submission.
- 1.6 The bidder is expected to examine all instructions, forms, terms and conditions and specifications mentioned in the bidding document. Failure to furnish incomplete or unsubstantiated information against the requirement of the bidding documents will be at the bidder's risk as it may summarily be rejected.
- 1.7 This call of tenders does not bind the Board to select the bids. The tenders submitted in response to this invitation may be rejected without assigning any reason.
- 1.8 The bidder should have setup at least one CBWTF, experience of operating a CBWTF for a minimum of three years, presently operating at least one CBWTF and have obtained the certificate of ISO- 14001 for at least once. There will be 100 points for evaluation of technical ability of the proponents and points will be attributed to them as given overleaf:-

SL NO	PARAMETERS	POINTS
i.	Completed setting up of three or more CBWTF	10
ii.	Presently operating two or more CBWTF anywhere in India for more than two years	10
iii.	Experience of operating a CBWTF for five years or more. (If, experience is within the frame of consortium, Points of experience will be divided by the number of partners of the consortium.)	20
iv.	20 nos. of technical staffs out of which 05 must be technical degree holder including Director/ Partner/ Proprietor of the company	10
v.	Valid authorization under Bio Medical Wastes (Management & Handling) Rules, 1998 for operating two or more CBWTFs from SPCB/PCC	15
vi.	Holding two or more ISO certificates related to Environment Management System and Quality Management System.	05
vii.	Operating CBWTF on State of Art management with zero liquid effluent discharge from the processing premises and meeting emission standard for CBWTF in the exit flue gas of incinerator	05
viii.	Any adequacy report prepared by a reputed organizations /SPCB/PCC on the functioning of operating CBWTF run by the proponent	05
ix.	Average of turnover of last three financial years ending 31 st March 2010, 2009 & 2008 should be Rs. 20,00,0000 (Rupees twenty million only) or more	20
x.	Points will be proportionally distributed for less than the minimum required parameters. For example: For five years or more experience of operating CBWTFs, points will be given -20, but if one is having an exp of only 03 years he will get only 12 points.	
xi.	<i>A PROPONENT WILL BE CONSIDERED TECHNICALLY QUALIFIED, IF HE/THEY OBTAINS AT LEAST 30 POINTS.</i>	

This tender notice, tender forms, schedule of requirements, specification etc are also available in Head office. The tender without requisite tender fee will be rejected.

- 1.9 The Board at its discretion may extend the last date of submission of tender and opening of tenders. The final authority for acceptance of a tender will rest with the Chairman. The Board is neither bound to accept the lowest tender nor required to assign any reason for rejecting any or all of the tenders received without assigning any reason.
- 1.10 Documents, literature, leaflets, etc, enclosed with tender shall become the property of the Jharkhand State Pollution Control Board without any payment.
- 1.11 The tender would be regarded as turned down, if no award of contract has been obtained till the expiry of the tender's validity. No separate communication will be made in this regard.
- 1.12 In case of the date of opening of tender is declared as public holiday, the tender shall be opened on the next working day at the same time.
- 1.13 The bid shall contain no interlineations, erasures or overwriting words except as necessary to correct errors made by the bidder, in that case such correction shall be initialed by the person or persons signing the bid.
- 1.14 Late and delayed tenders will not be considered and shall be returned unopened to the bidder.
- 1.15 It is advised that the outside bidders should send the tender through registered post. However, the local bidders may drop their tenders in tender box kept in Jharkhand State Pollution Control Board for the purpose. In no case tender should be handed over to any employee of the Board.
- 1.16 Canvassing in any form will disqualify the bid.
- 1.17 Request for the tender document for bidding through telex, telegram, telephone, fax and tele fax shall not be entertained.
- 1.18 The reference of tender notice must be invariably quoted in the bid and for further correspondence in this regard.
- 1.19 All the Tenders should be addressed to :

**THE MEMBER SECRETARY, JHARKHAND STATE POLLUTION CONTROL BOARD
T.A.BUILDING, GROUND FLOOR, HEC CAMPUS, P.O.- DHURWA, RANCHI-834004, JHARKHAND**

2.0 SUBMISSION OF BID

- 2.1 The bid prepared by the bidder and all correspondence and documents relating to the bid exchanged by the bidder and the purchaser, shall be written in English/Hindi language. Any printed matter furnished by the bidder other than English/Hindi language must be accompanied with English translation , for the purpose of interpretation of the bid.
- 2.2 The bid must accompany **annexure-I** with techno commercial part and **annexure- II** along with 'price' part of the bid duly filled in and signed by the bidder along with the seal of the Firm.
- 2.3 The bidder is expected to examine the bidding documents carefully and are deemed to have received and read all documents. It shall be the responsibility of the bidder to request the copies of any missing documents. Failure to do so will be at bidder's risks.

IMPORTANT

BIDDER CAN QUOTE THE RATES FOR ALL THE CBWTFS OR SOME OF THE CBWTFS AGAINST ONE TENDER DOCUMENT. HOWEVER, SEPARATE PRICE BID AND TECHNICAL BID SHOULD BE SUBMITTED FOR EACH CBWTF CLEARLY MENTIONING THE PLACE CODE NUMBER, PLACE NAME ON THE TOP OF THE ENVELOPES WITH SENDERS NAME AND ADDRESS. THE JHARKHAND POLLUTION CONTROL BOARD RESERVES THE RIGHT TO ACCEPT THE TENDER IN FULL OR IN PART. THE BID FOR EACH ITEM SHOULD BE IN SEPARATE SHEETS/PAGES AND FOR THE SAKE OF IDENTITY, COMPILATION, CODE NUMBER AND DESCRIPTION OF CBWTF SHOULD BE WRITTEN ON THE TOP OF EACH BID.

- 2.4 The tender is to be submitted "single stage-2 envelopes system" i.e. the first sealed envelope will contain full information required to judge pre-qualification, complete details and specification of the equipments offered including the leaflets and catalogues, list of credentials with documentary evidence i.e., purchase /work order etc. Income tax Clearance Certificate, PAN No., VAT/Sales Tax Registration No., Affidavit for not being black listed, Commercial Terms & Conditions etc. It shall be marked "Prequalification, technical and commercial Bid No.-----dated----- due on 09.08.2010 for setting up of CBWTFS" The second envelope will contain only price quoted by the bidder in the form given at **Annexure-II** of this document and shall be clearly marked "Price Bid No.-----dated -----for civil construction and installation of equipments". Both the above envelopes must be separately sealed and shall be kept in one envelope bearing the address of Jharkhand State Pollution Control Board and super scribed with bold letter.

"TENDER FOR SETTING UP OF CBWTFS" NOT TO OPEN BEFORE 09-08-2010 AT 4.00 P.M. The senders address should be mentioned in all envelopes. Item Code number(s) should be mentioned invariably on all envelopes.

- 2.5 Technical part of the tender will be opened on due date i.e. at 4.00 P.M. of 09.08.2010 in the office of the Member Secretary, Jharkhand State Pollution Control Board in presence of the Representative of the Tenders who would like to present Sealed Price part of Technically and Commercially acceptable tenders will be opened on a later date which will be communicated by the Board on the same day or on a later days.

- 2.6 The validity of Tender would be for a minimum period of 120 days from the date of opening of Tenders. A Bid valid for a shorter period may be rejected by the Board as non responsive. In extension cases, the Board may solicit the Bidder's consent to an extension on the period of validity and the bid shall remain valid for the extended period mutually agreed for.
- 2.7 The rates should be quoted both in words and figures.
- 2.8 Tenders not in proper sealed cover or received Tele-graphically/Fax will not be entertained.
- 2.9 Conditional Tenders will be rejected without assigning any reason.
- 2.10 The Bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person duly authorized to the Contract. The letter of authorization should bear the signatures of only the authorized person of the firm. All pages of the Bid, except for un amended printed literature shall be initial by the person or persons signing the bid.
- 2.11 To assist in the examination, evaluation and comparison of bids the buyer may, at discretion, ask the Bidder for a clarification of its bid. However, no change in the price or substance of the bid shall be sought, offered, re-permitted.
- 2.12 Eventual suggestions for modification or subsidiary Tenders are principally not admissible.
- 2.13 The specification are clearly mentioned in the document and the Bidder are requested to submit the Bid only if their offer strictly comply to these specifications. Please note that no deviation in the required specification will be permitted. The bidding for the equipments having different specification will be on Bidder's risk as the Board will not entertain such Bids. BIDS CARRYING THE STAEMENT LIKE "SPECIFICATION AS PER TENDER DOCUMENT" SHALL NOT BE ENTERTAINED. THE PRODUCT SPECIFICATIONS SUPPORTED BY TECHNICAL LITRATURE AND LIST OF USERS, MUST BE ENCLOSED.
- 2.14 The placement of work order will be according to technical evaluation of the Tender and after consideration of its price worthiness.
- 2.15 The price to be given in the Tender are fixed prices, irrespective of rise in materials prices and increase in taxes etc, till the completion of works. No requested in regard to increase in the price of equipments or in taxes etc, will be entertained after the submission of the tender.

- 2.16 **The bidder should attach a copy of financial bid (without cost/price figures) along with the technical bid to assess the equipments quoted in the bid.**
- 2.17 The nomenclature of the **equipments** and spares will be invariably the same as in Proforma Invoice, Invoice, in case the Bidder is asked to install the **equipments** against its offer.
- 2.18 With the submission of the Tender, the Bidder accepts the conditions of the Tender.
- 2.19 The installation of the **equipments** is the entire responsibility of the bidder. It must be done either by the principal / bidder or their authorized agents with information to the Board.
- 2.20 The list of equipments, their quantity and place of installation given at **Annexure-V** and the detailed specifications of the instrument are given in the tender document. It is binding upon the bidder that for one place he has to bid for all civil construction and installation of all equipments.
- 2.21 Each and every folio of the Tender must be signed by the Bidder.
- 2.22 Bidder can quote the rate for civil construction and equipments for all the places or some of the place mentioned.. The Bid shall be considered only for those places for which the rates have been specifically quoted. The Board further reserves the right to accept the tender for all the places or some of the places for which the bidder has quoted the Bid. The bidder should attach a separate operating manuals of each equipments with the bid.
- 2.23 The bidder should provide a complete list of spares and consumables required for operation and maintenance of the equipments along with the price list.
- 2.24 The bidder should quote the charges for treatment and disposal of Bio-medical wastes on the basis of per bed to be charged from Health Care Facilities keeping in mind that the Bio-Medical wastes have to be transported from a maximum distance of 150 Km from site of CBWTF. Variable two rates may be quoted on variation of distance.
- 2.25 The bidder will have to finalise the land sites (not less than one acre) in consultation with Jharkhand State Pollution Control Board within three months of award of contracts failing which bid awarded may be cancelled.

- 2.26 At any time prior to the deadline for submission of bids the board may for any reason whether at its own initiate or in response to a clarification requested by a prospective Bidder, modify the bidding documents by an amendment.
- 2.27 The Amendment if any, will be brought to the notice in writing or by fax or cable to all concerned Bidders who have purchased the bidding documents and will be binding on them.
- 2.28 In order to afford prospective Bidder reasonable time in which to take the Amendment into account in preparing their bids, Board may at its discretion, extend the deadline for the submission of bids.
- 2.29 The prices must be quoted item-wise i.e. basic price, taxes, packing forwarding, handling and installation charges etc. The charges must be quoted clearly and not in vague terms like "As Actual" – "Approx" etc.
- 2.30 If according to the Bidder, the tender Documents contain unclear points which could influence price calculation the bidder has to inform the authority who is issuing the call of Tenders before submission of his Tender, either in writing or by fax even if he has pointed out this earlier in any other form/reference.
- 2.31 The warranty/guarantee of the equipment should be clearly mentioned in the Bid.
- 2.32 Prior to placing purchase order, in case the buyer desires to inspect the stores/instrument equipment including demonstration should be arranged by the supplier in the premises of the Jharkhand Board on free of charges.
- 2.33 MOST IMPORTANT**

PLEASE NOTE THAT ANNEXURE-I OF THIS DOCUMENT MUST BE ENCLOSED WITH THE FIRST PART OF BID i.e. "TECHNICAL/COMMERCIAL BID AND TENDER FEE (IN THE CASE OF DOWNLOADED DOCUMENT") AND ANNEXURE-II AND III WILL BE KEPT IN THE SECOND PART OF BID i.e. PRICE BID.

2.34 PLEASE NOTE THAT THERE IS NO NEED TO ENCLOSED THE ENTIRE TENDER DOCUMENT (SUPPLIED BY THE BOARD) WITH YOUR BID. ONLY ANNEXURE-I, II AND III NEED TO BE ENCLOSED AS PER INSTRUCTION STIPULATED IN PARA 2.4 AND OTHER RELEVANT PARAGRAPHS OF THIS BID.

3.0 Disbursement of subsidy by Central State Govts:

3.1 A tendere will be disbursed Central as well as State subsidy of 25% each of total cost of projects including land (Land prices as per Govt. rate) only when he/they will be granted NOC by Jharkhand State Pollution Control Board for setting up of CBWTF at particular place and as per norms of the Central and State Ministry for the purpose concerned. JSPCB will provide NOC to those sites only which will meet the following distance criteria:

River Bed/ Water body	-	500 mtr
Habitants	-	500 mtr
Forest	-	500 mtr
NH / Railway Line	-	200 mtr

Installment of subsidy will be decided by the Board and the Central Ministry. Also after obtaining NOC from JSPCB bid awardee will have to first invest 25% of the total cost of projects towards construction & installation of equipments at the site then, 25% of the subsidy to be disbursed will be released and so on. The final 25% of the subsidy will be released after completion of 90% of the project works.

4.0 SETTLEMENT OF DISPUTE, ARBITRATION

4.1 All disputes or differences arising out of or in connection with the contract and supply of any equipment assigned under the same (whether during the progress of the works or after their completion, determination, abandonment or breach of the contract) shall be settled within the judicature of Hon'ble High Court, Jharkhand. The courts at Jharkhand shall have exclusive jurisdiction to entertain and try all matters arising out of this contract.

5 FORCE MAJEURE

Bidder shall not be considered in default if delay in delivery occurs due to causes beyond his control such as acts of God, natural calamities, civil, wars, strikes, fire frost, floods, riots and acts of unsurped power. Only those causes which have a duration of more than 7 calendar days shall be considered cause of force majeure. A notification to this effect duly certified by the Local Chamber of Commerce/Statutory Authorities shall be given by the bidder to the owner by registered letter. In the event of delay due to such cases a length of time equal to the period of force majeure or at the option of the owner the order may be cancelled. Such cancellation would be without any liability whatsoever on the part of owner. In the event of such cancellation the vendor shall refund any amount advanced or period to the vendor by the Purchaser and delivery back any material issued to him by the purchaser and release facilities, if any, provided by the Purchaser.

6. A bidder will submit a bar chart for completion of work of projects within a week of award of works mentioning the time of completion of works which in no case should exceed seven months from the date of award of works. Test run of commissioning of equipments should be completed within another 10 days of completion of installation of equipments.

Annexure-1
(Application Form)

APPLICATION FORM

(To be filled by the bidder)

- 1) Name and full address of the Bidder including Telegraphic Address/Telex No. and Fax No. :
- 2) Name and Designation of the Head Of the Firm and his Telephone No. :
- 3)
 - (i) Name, Designation, Address Telephone & Fax Numbers of the Authorized Person who may be contacted during the process Of construction :
- 4) Item Code Number (s) & description of item quoted for :
- 5) Income tax Clearance Certificate attached (Latest) (Yes or No) with PAN Number.

Place :

Date :

Legally Binding Signature with stamp.

Annexure II

Bid Form

Details showing quantity, specification, quantity and other details of the Civil Construction and Equipment offered (to be filled by bidder and must be kept in 'price bid' part of tender)

Serial and item code of Civil Construction and Equipment as per tender document	Name of Civil Construction and Equipment	The specification offered by the bidder	Difference in specifications of tender document and that of bid, if any	Quantity	Unit price	Taxes and other expenditures (Sales tax, C S T, Freight, cost of installation.	Total amount in Rupees for Locations
1	2	3	4	5	6	7	8

Note: If this sheet is not sufficient to accommodate the bid the additional sheets containing the same proforma but all such sheets including this one must be signed by the bidder along with the seal. This annexure must enclose in the proforma invoice price bid for item wise. Separate bid form should be attached against each location quoted for.

Signature with date & stamp of bidder

Annexure-III

UNDER TAKING

DATE -----
TENDER NOTICE NO.-----

To,
THE CHAIRMAN
JHARKHAND STATE POLLUTION CONTROL BOARD
T.A.BUILDING (GROUND FLOOR) HEC, DHURWA,
TANCHI-834004

Sir,

Having examined the conditions of Tender Document and specifications of the instruments, the receipt of which is hereby acknowledged, We, the undersigned, offer to supply, delivery and install the following :

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.

(Please add additional pages, if required) The above supply, installation shall be in conformity with the specifications and conditions of installation.

We, under take if our bid is accepted to install the equipments at particular place quoted by us, we shall install within the period indicated by us in our offer.

We agree to abide by this bid for a period of 120 days from the date fixed for Bid opening and it shall remain binding upon us and may be accepted at any time before expiration of that period.

This Bid, together with your written acceptance thereof in your notification of award shall constitute a bidding contract between yourself.

We understood that you are not bound to accept the lowest or any bid you may receive.

Dated this -----day of -----2010

Signature of authorized Person,
Name with Stamp & Full
Address.

Annexure - IV

Specifications of constructions as well as equipments to be installed at different locations with quantity :

S.N.	Code no.	Items	Specification	Quantity
1.	1.	Land	1.0 Acre (at an areal distance of 5 to 10 km out of municipal area of Ranchi, Jamshedpur, Dhanbad, Daltonganj and Deoghar as per applicability).	1 site each for all the five locations.
2.	2.	Boundary Wall (Masonry lining) using 1:6 mortar with plastering and painting	Minimum B grade red bricks/flyash bricks with 3mtr. high.	
3.	3.	1. Main gate 2. Side gate	3.5x4.5m 1.5mx4.5m all steel	01 01
4.	4.	Building construction :	RCC M20 with brick masonry	
		(i) G.M. Office + Furniture	5m x 4.5m x 4.5m + furniture of standard company	01+01EC+1ET+8SC
		(ii) General Office + Furniture	12.2m x 7.35m x 4.5m + Furniture of standard company	01
		(iii) Staff Lunch Room with all accessories	6.1m x 6.1m x 4.5m+ Furniture of standard company	01
		(iv) Pantry	3.05m x 3.05m	01
		(v) Guard Room	3.05m x 3.05m	01
		(vi) Waste storage room	15.25m x 6.1m x 4.5m with smooth rakes.	01
		(vii) Treated Waste Storage room	15.25m x 4.58m x x4.5m with smooth rakes.	01
		(viii) Vehicle washing Platforms	3.66m x 2.44m	02 for all the places.
		(ix) Loading unloading platforms	3.66m x 2.44m	4 for each of the five locations.
		(x) Incinerator room with APCD units	15.25m x 9.15m (a minimum of 1.5m clear distance in all the direction from the incinerator structure).	01
		(xi) Autoclave & Shredder unit	12.20m x 9.15m	01
		(xii) Garaj for vehicle parking.	3.66m x 1.83m	04 for all the places.

5.	Dual Chamber Incinerator of 200 kg/hr capacity with APCD	(i) Incinerator skin of M.S. plate of 5mm thickness and painted externally with heat resistant aluminum paint to with stand a temperature of 250°C with proper surface prepared.	01
		(ii) Refractory lining of combustion chambers to with stand a minimum temperature in primary chamber-1000°C and in secondary chamber-1200°C. The refractory and insulation bricks shall have a minimum of 115mm thickness each and it must conform to IS8- 1983 and IS-2042-1972 respectively.	As per requirement for primary & secondary combustion chambers.
		(iii)The hearth area of primary chamber shall not be less than 3.0sq.m and the minimum flow of flue gas in secondary chamber shall be 3.0m ³ /sec. at 1050°C in secondary chamber.	
		(iv)The size of secondary chamber shall be so put that residence time of flue gas in this chamber in no case shall exceed one second.	
		(v) Castable 45mm thick refractory lining of the hot duct and 80mm thick insulating castable ceramic wool to be used at hot duct flanges & expansion joints.	As per requirement
		(vi)Automatic air assisted burners of 25 liters/hour capacity equipped with auto spark igniter.	2 nos. for primary. 01 nos. for secondary
		(vii) HSD/LDO container of M.S. of minimum 3mm thick for fuel burner of 600liters capacity.	01
		(viii) Burner air fan of horizontal, centrifugal type of 1000m ³ /h capacity having a pressure head of 450mm WC with 3Hp motor.	01
		(ix)PLC thermocouple in primary chamber should be located before admission of the secondary air and in secondary chamber it should be placed at the end of secondary chamber or before the admission of dilution medium to cool the gas.	1 each in primary & Secondary chamber

		<p>(x) 30m high self supported 900mm bottom and 300mm top dia M.S. chimney as per IS-6533 - 1989 with 3mm thick natural hard rubber lined from inside. It will also conform to IS:4682 part I-1968 to avoid corrosion due to oxygen and acids in flue gases. Chimney provided with port hole and platform at 12-14m height with stable ladder.</p>	01
		<p>(xi) PLC system for whole system of incinerator indicating its startup time and completion of cycle of combustion, working of APCD with its accessories.</p>	01
	<p>(xi) Air Pollution Control Device (APCD)</p>	<p>(a) Ventury scrubber of stainless steel 316L grade or better material with acid resistance bricks with lime acking and minimum pressure drop of 350mm WC with temp. of flue gas at the out let shall be approx 70-80°C.</p>	01
		<p>(b) Pump & pipes of 5m³/h capacity with 1kg/sq.cm made up of stainless steel 316 grades or better material for circulating plain/soda ash water @2.5 to 3 liters/m³ of saturated flue gas at ventury outlet. The motor attached should be of 2 Hp @3000 RPM.</p>	01
		<p>(c) Droplet separator and interconnecting ducting from ventury scrubber to droplet separator to ID fan & ID fan to stack of M.S. lined from inside with 3mm thick natural hard rubber and conform to IS-4682 part-1 - 1968 to avoid corrosive due to oxygen and acid in the wet flue gas.</p>	01
		<p>(d) Recirculation tank of capacity 1000mtr. of SS</p>	01
		<p>(e) ID fan attached to chimney Horizontal, Centrifugal of 5200m³/h with 450mm WC pressure drop, 15 Hp motor with 316 L grade SS</p>	01

6.	6.	Autoclave of 300kgs capacity	(i) Fully automatic horizontal in shape with auto & manual lock system having high pressure 55Psi/high vacuum 712 mm WC type steam sterilizer with saturated steam temp. of 150°C. The casing will be of S.S. – 316L grade with Glass wool insulation covered with polished S.S. with PLC.	01
			(ii) Baby boiler: L.D.O./H.S.D. fired PLC regulated standard company non IBR of 150kg/hr dry steam capacity with design temp. & pressure of 200°C and 9kg/sq.cm respectively.	01
7.	7.	Shredder	Capacity 3.0MT./day with hardened alloys steel blade with 3 and 4 no. of pieces of inner & outer blades respectively. Size of frame angle - 2"x ¼"R.P.M. - Main shaft > 40 and < 60 SIDE shaft > 35 and < 55	01
8.	8.	E.T.P.	For effluent not less than 2000 liter/day(approx).	01
9.	9.	Transport vehicles & trolleys	Tata-407/ACE/Eicher/Mahindra pickup make with proper labeling	06nos. for Ranchi and 4 each for other places.
10.	10.	Water requirement	A minimum of 2 H.P. Submersible pump of standard company like Crompton & greaves, Krilosker with all details for meeting the water requirement including over head tank.	01
11.	11.	Transformer	50 KVA of standard company with all accessories.	01
12.	12.	D.G. set of 62.50 KVA	Standard company equipped with green technology and surrounded fully with acoustics with noise level < 65 db at full load.	01

(R.K. Sinha)
Member Secretary

Annexure- V

LOCATION OF SITES WHERE CONSTRUCTION ARE TO BE DONE AND THE EQUIPMENTS OF THE CBWTFs ARE TO BE INSTALLED

SL NO.	CODE NO.	NAME OF THE PLACE WHERE CBWTFs ARE TO BE INSTALLED	NO OF CBWTF PROPOSED TO BE SETUP
01	01	RANCHI	01
02	02	JAMSHEDPUR	01
03	03	DHANBAD	01
04	04	DALTONGANJ	01
05	05	DEOGHAR	01