

ANDREW YULE & COMPANY LIMITED
(A Government of India Enterprise)
Engineering Division,
Plot -16 A & B, Block-D,
Kalyani, Nadia, PIN-741235, WB

TENDER DOCUMENTS FOR DESIGN, ENGINEERING, MANUFACTURE, , SUPPLY, SUPERVISION OF FABRICATION & ERECTION , TESTING, TRIAL RUN & COMMISSIONING, DEMONSTRATION OF PG PARAMETERS OF FUME EXTRACTION SYSTEM OF CAST HOUSE AT INTEGRATED STEEL PLANT AT DUBURI-ODSHA

ANDREW YULE & CO. LTD. invites e-Tender under two part bid system from bona fide and reputed Company for above mentioned Job. The Item details are available in Annexure-V of this tender document.

Tender document may be downloaded from MSTC website: www.mstcecommerce.com/eprochome/aycl. Corrigenda or clarifications, if any, shall be hosted on the above mentioned websites only. AYCL reserves the right to accept or reject any tender.

Brief Description:-

E-TENDERS ARE INVITED FROM REPUTED COMPANY FOR DESIGN, ENGINEERING, MANUFACTURE, , SUPPLY, SUPERVISION OF FABRICATION & ERECTION , TESTING, TRIAL RUN & COMMISSIONING, DEMONSTRATION OF PG PARAMETERS OF FUME EXTRACTION SYSTEM OF CAST HOUSE AT INTEGRATED STEEL PLANT AT DUBURI-ODSHA

Price quoted should be FOR destination/Site.

Schedule of Tender

1.	TENDER NO.	AYCL/ENGG/MSD/SSG/ S & S /19-20/245 Dated: 13.04.2019
2.	MODE OF TENDER	e-Procurement System Online submission of Techno-Commercial Bid and Price Bid through www.mstcecommerce.com/eprochome/aycl The intending bidders are required to submit their offer electronically through this e-tendering portal. No physical tender is acceptable.
3.	E-Tender No. / Event No.	AYCL/Engineering Division /13/ 19-20/ET/18
4.	Date of publication of e-Tender through publication MSTC/AYCL websites and Central Public Procurement Portal	13.04.19-
5.	Date of availability of NIT to the Vendors for downloading	13.04.19
6.	a) Earnest Money Deposit:- b) Cost Of Tender Documents:-	a) "Earnest Money Deposit"-Rs. 50,000/- (Rupees Fifty Thousand only) b) Rs 2500 (Rs Two Thousand Five Hundred Only.) to be paid by D.D. favoring Andrew Yule &Co Ltd, payable at Kolkata. Also refer Annexure –IV for EMD waiver clause.
8	Date of Starting of e-Tender for submission of Online Techno-Commercial Bid and Price Bid at www.mstcecommerce.com/eprochome/aycl	13.04.19-5.00pm
9	Date of closing of Online e-tender for submission of Techno-Commercial Bid & Price Bid at www.mstcecommerce.com/eprochome/aycl	26.04.19-2.00pm
10.	Date & time of opening of Part I - Techno-Commercial Price Bid	26.04.19-3.00pm
11.	Date & time of opening of Part II - Price Bid	Price of techno-commercially acceptable vendor may be opened at a later date to be communicated suitably to the eligible bidders..

List of Annexure

Important Instructions for E-procurement -	Annexure-I
General Information-	Annexure-II
Techno commercial terms	Annexure-III
General Terms& Conditions	Annexure-IV
Broad Scope of Supply	Annexure –V
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Important Instructions for E-procurement

This is an e-procurement event of ANDREW YULE & COMPANY LTD.

You are requested to go through the Terms & Conditions (Annexure- III, and IV) of this tender before submitting your online offer . Bidders who do not comply with the Conditions with documentary proof (wherever required) will not be considered for evaluation.

1. Process of E-tender:

A) **Registration:** The process involves vendor's registration with MSTC e-procurement portal which is free of cost. Only after registration, the vendor(s) can submit his/their bids electronically. Electronic Bidding for submission of Techno-Commercial Bid as well as Price Bid over the internet will be done. The Vendor should possess Class III signing type Digital Signature Certificate. Vendors are to make their own arrangement for bidding from a PC connected with Internet. MSTC is not responsible for making such arrangement. (Bids will not be recorded without Digital Signature).

SPECIAL NOTE: THE PRICE BID AND THE COMMERCIAL BID HAS TO BE SUBMITTED ON-LINE AT www.mstcecommerce.com/eprochome/aycl

- 1) Vendors are required to register themselves online with www.mstcecommerce.com e-Procurement PSU / Govt. depts. Register as Vendor under AYCL- Filling up details and creating own user id and password Submit.
- 2) Vendors will receive a system generated mail confirming their registration in their email which has been provided during filling the registration form.

In case of any clarification, please contact MSTC/AYCL (before the scheduled time of the e-Tender).

Contact person (ANDREW YULE & COMPANY LTD):

Name :- Mr SK Saha-Dy Mgr (Projects & Mktg)
M No- 90510-55426
Phone : +91(33) 2582 5734; +91(33) 2582 8279
Fax : +91(33) 2582 8581

Phone : +91(33) 2582 5734;

Contact person (E-Commerce, MSTC Ltd):

- | | |
|--|---|
| 1. Mr. Pritam Biswas
Asstt Manager (ERO)
MobileNo: 99032-48755
Email: pbiswas@mstcindia.co.in | 2)Mr. Mayank Jain
Assistant Manager (ERO)
Mobile- 97212-77969
Email:mhjain@mstcindia.co.in |
|--|---|

3.Mr Vikash Kr Jaiswal
Regional Manager (ERO)
Mobile-99032-42449
Email: vikash@mstcindia.co.in

System Requirement:

- i) Windows XP-SP3 or above / Windows 7 Operating System
- ii) IE-7 or above Internet browser.
- iii) Signing & Encryption type digital signature
- iv) JRE 7 updates79 software to be downloaded and installed in the system. Security level should be medium

- v) To enable ALL active X controls and disable 'use pop up blocker' under Tools Internet Options custom level (Please run IE settings from the page www.mstcecommerce.com once)

2. **Part-I:** Submission of EMD & Filled up General Information Form (Annexure- II), Eligibility Criteria fulfillment docs.,- in sealed envelope to Sr. Manager (Materials), KW, AYCL: before the last date for submission of bid/tender

Bidder may request for exemption from submitting EMD (Refer details given in Sl No 1 of Annexure-IV, General terms & condition).

Earnest Money as per amount mentioned in Annexure-IV to be paid by DD favouring Andrew Yule & Co. Ltd. Payable at Kolkata

General information, under Annexure-II complete in all respect along with desired document.

In case of failure to submit the EMD within the stipulated time, the offer will be rejected.

Part-II: Online Bid Submission: After proper submission of EMD at Andrew Yule & Co, the prospective bidder to submit online Techno commercial and price bid through MSTC portal.

Following documents are to be uploaded at the E-Tender Portal as a credential of the prospective bidder:/ submitted in sealed envelope to Sr Mgr (Matls.), KW , AYCL before the last date of submission of bid/Tender.

- 1) Present Customer List.
- 2) Copies of purchase Orders & Performance Certificate from at least three reputed Organizations for having supplied same materials and provided same service during last 4 years. Offers received without copies of performance certificate will/may be rejected.
- 3) Balance sheets and P&L Account. (last three years ending March 2018.).

Bidding in e-Tender:

- a. No interest will be paid on EMD. EMD of the unsuccessful bidder(s) will be refunded by ANDREW YULE & COMPANY LTD. EMD to be paid along with the Document within the last date as mentioned in this Tender document . No interest will be paid on EMD for unsuccessful bidder.
- b. The process involves Electronic Bidding for submission of Techno Commercial Bid as well as Price Bid.
- c. The bidder(s) who have submitted the EMD & Tender Fee to Andrew Yule can submit their Techno Commercial Bids and Price Bid through internet in MSTC website www.mstcecommerce.com e-procurement PSU / Govt depts. Login under AYCL My Menu Auction Floor Manager live event Selection of the live event.
- d. The bidder should allow to run an application namely enApple by accepting the risk and clicking on run. This exercise has to be done twice immediately after opening of Bid floor. Then they have to fill up Common terms /Commercial specification and save the same. After that clicking on the Techno-Commercial bid, if this application is not run then the bidder will not be able to save / submit his Techno-Commercial bid.
- e. After filling the Techno-Commercial Bid, bidder should click 'save' for recording their Techno-Commercial bid. Once the same is done, the Price Bid link becomes active and the same has to filled up and then bidder should click on "Save" to record their Price Bid. Then once both the Techno-Commercial bid & Price Bid has been saved, the bidder can click on the "Submit" button to register their bid.
- f. Vendors are instructed to use link in My Menu to *Upload Documents* in document library. Multiple documents can be uploaded. Maximum size of single document for upload is 5 MB.
- g. Once documents are uploaded in the library, vendors can attach documents through *Attach Document* link against the particular tender. For further assistance please follow instructions of vendor guide.
- h. In all cases, bidder should use their own ID and Password along with Digital Signature at the time of submission of their bid.

- i. During the entire e-tender process, the bidders will remain completely anonymous to one another and also to everybody else.
- j. The e-tender floor shall remain open from the pre-announced date & time and for as much duration as mentioned above.
- k. Techno-Commercial bid will be opened electronically on specified date and time as given in the NIT. Bidder(s) can download Technical Comparative statement.
- i. Price bid will be opened electronically on specified date and time given in the NIT. m. All entries in the tender should be entered in online Technical & Commercial Formats without any ambiguity.
- n. All electronic bids submitted during the e-tender process shall be legally binding on the bidder. Any bid will be considered as the valid bid offered by that bidder and acceptance of the same by the Buyer will form a binding contract between Buyer and the Bidder for execution of supply. Such successful tenderer shall be called hereafter SUPPLIER.
- o. It is mandatory that all the bids are submitted with Digital Signature Certificate otherwise the same will not be accepted by the system.
- p. Buyer reserves the right to cancel or reject or accept or withdraw or extend the tender in full or part as the case may be without assigning any reason thereof.
- q. No deviation of the terms and conditions of the tender document is acceptable. Submission of bid in the e-tender floor by any bidder confirms his acceptance of terms & conditions for the tender.
- r. Unit of Measure (UOM) is indicated in the e-tender Floor. Rate to be quoted should be in Indian Rupee as per UOM indicated in the e-tender floor/tender document.

E-tender cannot be accessed after the due date and time mentioned in NIT.

All notices / corrigendum and correspondence to the bidder(s) shall be sent by email only during the process till finalization of tender by ANDREW YULE & COMPANY LTD/MSTC LTD. Hence the bidders are required to ensure that their corporate email I.D. provided is valid and updated at the stage of registration of vendor with MSTC. Bidders are also requested to ensure validity of their DSC (Digital Signature Certificate).

Any order resulting from this open e-tender shall be governed by the terms and conditions mentioned therein.

No deviation to the technical and commercial terms & conditions are allowed.

ANDREW YULE & COMPANY LTD has the right to cancel this e-Tender without assigning any reason thereof.

The online tender should be submitted strictly as per the terms and conditions and procedures laid down in the website www.mstcecommerce.com/eprochome/aycl of MSTC Ltd.

The bidders must upload all the documents required as per terms of NIT. Any other document uploaded which is not required as per the terms of the NIT shall not be considered.

The bid will be evaluated based on the filled-in technical & commercial formats.

Bidders are requested to read the vendor guide and see the video in the page www.mstcecommerce.com/eprochome/mstc of MSTC Ltd. to familiarize them with the system before bidding.

ANDREW YULE & COMPANY LIMITED
Engineering Division

General Information

Tender ref.: AYCL/ENGG/MSD/SSG/S.E/205 Dated: 15.01.19
Ref(This document should be dully filled up and attached along with EMD)

The applicants are required to furnish full information to the queries included in this form. In giving the particulars, the supporting documents/certificates as called for per queries at places, must be tagged with the application for evidencing the information furnished in the application.

1. Name of the firm in full :

2. Address, Telephone No.,

Fax No. & E-mail :

a) Address :

b) Telephone No. :

c) Fax No. :

d) E-mail ID :

e)Name of contact person :

3. Status of the company (Limited / Pvt. Ltd /
Proprietary /partnership/ Reg. /Non-Reg.
and date of inception:

4. Trade License No.
(Please attach a photo
Copy of the license) :

5. GST No.
(Please enclose photocopy of Reg.)

6. Banker's name
(a) Name of the Bank :

(b) Name& address of the Branch :

(c) Account No. :

Note: A copy of Banker's Certificate to be attached.

8. I. T. Permanent Account No.&
assessed up to (latest clearance
Certificate to be attached):

9. Turnover in last three financial
years (Audited Balance Sheet and
P & L Account to be submitted):

10. Name of present customers
(Photocopy of few contracts may
be enclosed):

11. Details of EMD (DD Details) submitted:

I/we hereby certify that the particulars furnished by me/us above are true to the best of my / our knowledge and belief and misrepresentations of facts will render me/us liable to my/our action as may be deemed fit by Andrew Yule & Co. Ltd. (Engineering Division) & have the sole discretion to reject or accept my/our candidature.

(Signature of the Applicant)
Office Stamp/Seal.

Place :

Date ;

List of Enclosures:

TECHNO-COMMERCIAL TERMS
(To be filled online in MSTC portal).

SI NO	TERMS & CONDITIONS	
1	<p>Delivery period/Lead time: The completion period of the work shall be 07 (Seven) months from the date of Purchase order/Work Order including supply & erection.</p> <ol style="list-style-type: none"> 1) GA Drawings for cast house duct / dampers etc to be submitted within 15 days of receipt of LOI/PO 2) Detailed drawing for fabrication to be submitted within 7 days time of receipt of comments/approval from the client if required. 3) Erection drawing to be submitted within two months time from the date of PO. 4) Operation manual to be made ready before trial run 5) Supply of all components to be commenced from two & half months & to be completed within three & half months time from the date of receipt of PO/LOI. 	Agree
2	L-1 bidder will be determined on totality basis as per broad scope of supply (as per Annx-V)	Agree
3	Risk purchase clause: The company reserve the right to impose risk purchase clause as " For delay in execution / supply AYCL shall have every right to do the same through some other agency/s which shall deemed fit and the additional cost of the same (Incidental/Consequential) shall be to your account which with respect to our intimation or observation whatsoever. Please confirm acceptance.	Agree
4	P&F- INCLUSIVE.	Agree
5	Liquidated damage - If the delivery is delayed beyond the date of scheduled date of execution in the order, penalty will be levied @ 0.75% per week subject to a maximum of 10%.of the total contract value. (Basic+ Tax)	Agree
6	<p>Dispute Resolution & Jurisdiction: Any contract entered against this tender will be as per the following:-</p> <p>It is recorded that this purchase order / contract / agreement is executed and concluded by and between the parties hereto at premises Engineering Division, Kalyani Works Plot -16 A & B, Block-D, Kalyani, Nadia, PIN-741235, West Bengal. In the event of any dispute arises out of this agreement between the parties only the appropriate Civil Court in the City of Kolkata shall have the exclusive jurisdiction to entertain, try and determine the said proceedings in exclusion of all other courts.</p>	Agree
7	Validity of offer: 90 days from the date of opening of the bid.	Agree
8	Price Basis: The price quoted should be FOR NINL -DUBURI site basis.	Agree
9	Validity of Price: The Price should remain valid, firm & fixed till completion of supply, installation and commissioning of the items & hand over of the project to the client . No price escalation will be allowed at any circumstances.	Agree
10	Guarantee /Warrantee Clause: 12 months from the date of successful commissioning or 18 months from the date of last supply whichever is earlier.	Agree
11	Inspection: Stage Inspection will be carried out by us/client at your works. Final inspection may be done, if required by us/client at site after receipt of the materials at site. Vendor to submit QAP for approval. Clearance of inspection does not absolve the vendor from their overall responsibility of achieving performance guarantee parameters of the system after commissioning.	Agree
12	<p>Codes and Standards:</p> <p>All equipment and materials to be furnished under this specification shall be designed, manufactured and tested in accordance with the latest revisions of the relevant Indian Standard(IS) as applicable. The work shall be done in compliance with the IS Specification.</p>	Agree
13	<p>Force Majeure Clause:-</p> <p>If at any time during the continuance of this Contract the performance by either party under this Order cannot be performed by reasons of any declared war, hostility, acts of the public or enemy, civil commotion, fire, flood, earthquake, explosion, epidemic, quarantine , restrictions, or other acts of God (hereafter referred to as eventuality) affecting the supply or respective obligation of the parties, the affected party shall notify the other of the happening of any such eventuality within 15 days (Fifteen days) from the date of the occurrence of such eventuality. In such an event neither party shall be entitled to terminate the order , nor shall either party have any claim for damages against the order in respect of such non-performance work under this tender. The performance shall be resumed as soon as practicable after such eventuality has come to an end or ceased to exist. Under such circumstances the contractual delivery period shall be extended by a period equal to that during which such eventuality operated plus an additional period. If any , as may be considered reasonable by Purchaser & Supplier. Whether the eventuality has come to an end or ceased to exist will be deliberated & mutually settled. Should one or</p>	Agree

	both parties be prevented from fulfilling their contractual obligations by a state of force majeure lasting continuously for a period of at least two (2) months , both the parties shall consult each other regarding further implementation of the order. Provided always that , if no mutually agreed arrangements is arrived at within a period of one (1) month from the expiry of the two months referred to above, the contract shall be deemed to have expired at the end of the said three months referred to above. The above mentioned expiry of the contract will imply that both the parties have the obligation to reach an agreement regarding the winding up & financial settlements of the contract.	
14	<p>Eligibility Criteria:</p> <p>I :- Financial :-</p> <p>a) Average Annual financial turnover during the last 3 years, ending 31st March of the previous financial year, should be at least Rs 200L. Annual report (balance sheet and Profit & Loss Account) of last 3 years to be submitted.</p> <p>b) Bank solvency certificate to be submitted.</p> <p>II:- Technical Criteria:- Experience of having successfully completed similar work during last 7 years ending last day of month previous to the one in which applications are invited should be either of the following: -</p> <p>a. Three work order costing not less than Rs 120L per order.</p> <p style="text-align: center;">Or</p> <p>b. Two work order costing not less than Rs 150L per order.</p> <p style="text-align: center;">Or</p> <p>c. One work order costing not less than Rs 250L per order.</p> <p>Definition of “similar work” means “ Design Engineering supply Supervision of erection , PG test & Hand over of de fuming / process de dusting system / supply & installation of APC equipment involving ESP/ Bag Filter/ bag House in Steel / Power / Cement industry.</p> <p>Please submit relevant documents.</p>	Agree
15	Necessary bar chart of all broad activity to be submitted with the bid.	Agree
16	Submission of EMD: Earnest Money Deposit”-Rs50,000 /- (Rupees Fifty Thousand only) to be paid by D.D. favoring Andrew Yule & Co Ltd, payable at Kolkata. Also refer Annexure –IV for EMD waiver clause.	Agree
17	<p>PAYMENT TERMS: - .(on back to back payment terms basis with AYCL client .)</p> <p>A) 10% Advance shall be released within 14 (fourteen) days against submission of ABG for equivalent amount which will be adjusted against each RA bill. The ABG will remain valid till completion of supply.. Further the same BG will have to be converted into CPBG valid till execution period.</p> <p>B) 85% pro rata payment (against RA bills) after adjustment of 10% advances to be cleared against receipt and acceptance of materials at stores/sites .</p> <p>C) 5% payment will be cleared against receipt of PAC –(tentatively with in 8th Month from the date of issue of PO) from our client..</p> <p>D) 5% payment will be released against receipt of CC (Commissioning Certificate- tentatively within 9th month from the date of issue of PO) by the client..</p> <p>E) 5% payment is to be cleared against issue of FAC by the client (within 6 months of commissioning & after completion of PG test) against submission of PBG for an equivalent amount. PBG will remain valid till warranty period.</p> <p>CPBG will be returned at agreed terms at the time of submission of PBG</p> <p>PAYMENT WILL BE MADE WITHIN 14 DAYS OF RECEIPT OF RESPECTIVE PAYMENT FROM THE CUSTOMER ON BACK TO BACK PAYMENT TERM BASIS.</p>	
18	GST ID No	
19	<p>Performance guarantee parameters:-</p> <p>1) Standard of fugitive emission in cast house:- Particulate matter 10 microgram/m³-4000</p> <p>2) Stack emission;- particulate matter:- mg/Nm³-50</p>	Agree

NB:- Pre- Bid discussion with intending vendors may be held at the AYCL-KW office on 22nd April . Intending parties are requested to check the date for any change with Sr Mgr –Materials.

GENERAL TERMS AND CONDITIONS

EMD: As per Annexure-IV, by way of Demand Draft drawn in favor of M/S ANDREW YULE & CO.LTD Payable at Kolkata to be submitted.

For bidders already enlisted with AYCL- Kalyani Works, having outstanding amount more than the EMD amount or who have already submitted the EMD against our earlier tenders or those who have security deposit with Andrew Yule may apply for adjustment of the same.

Bidders who are MSME units may apply for exemption from furnishing EMD by making a specific request in writing and enclosing the necessary document in support of the same.

Bidders whose turnover is more than Rs: 50 crores may apply for exemption from furnishing EMD by making a specific request in writing and enclosing the necessary document in support of the same.

If reason for non-submission of EMD or adjustment against the outstanding balance for EMD is not mentioned in Techno-commercial bid of tender, the tender may be rejected.

New vendors are required to submit all credentials for enlistment /competency

THE RIGHTS OF THE COMPANY

The company reserves the right to reject any tenderer based on their past performance

**Fume Extraction System of Cast House
Broad Scope of Supply and Erection**

Sl No.	Item Description:-	Unit	Qty
A	Design & Engineering of complete Fume Extraction System i.e. including Suction Hood for two cast house, Suction dampers, ducting, Bag Filter, Dust Conveying & storage system, Electrics and PLC Control System.	1	Lot
B	Supply of following for Suction Dampers:		
	Motorized Control Suction Dampers	Nos.	6
	Control Panels for Motorized Damper	Nos.	2
	Power & control Cables from Control Panel to Motorized Damper	Set	2
C	Supply of Bag Filter/ Bag House component		
	Filter Bags	No	2766
	Bag Holding Cages	No	2766
	Bag filter top plenum consisting tube sheet & top cover	Lot	1
	Bag filter pneumatic outlet Damper for individual modules	No	5
	Bag filter out let Damper for individual modules	No	5
	Pulse Cum Solenoid Valves	No	63
	Differential Pressure Switch	No	2
	Differential Pressure Transmitter	No	1
	Pressure Switch	No	1
	Compressed Air Piping with isolation valve & Filter Regulator Unit	Set	1
	Hopper Dust Level Switch	Set	1
	Motor Control Centre	No	1
	Local Control Desk	No	1
	Bag Filter Controller	Lot	1
	Full Set of Pulsing Systems	Lot	1
	Power & Control Cables from PMCC Panel to equipment and PMCC to PLC to be located in MCC Room	Lot	1
	Supply of PLC with feedback to plant PLC and Loading of Software	No	1
D	Supervision of Erection of all supply items under the scope of AYCL at sr. no. B& C Above and item to be Supplied by NINL. For supervision you have to deploy your supervisor / Engineer at NINL plant as and when required by NINL	Day	120
E	Testing & Commissioning & Demonstration of performance Guarantee Parameter	Lot	1

- 1) VENDOR TO SUPPLY ALL ITEMS WHICH IS REQUIRED FOR COMPLETION OF THE JOB , BUT NOT COVERED UNDER THE ABOVE SCOPE, FREE OF COST .
- 2) ALL DOCUMENTS LIKE DETAILED DRAWING & PREPARATION OF TECHNICAL SPECIFICATION WILL ALSO BE UNDER THE SCOPE OF THE VENDOR.
- 3) GA DRAWING TO BE SUBMITTED WITHIN 15 DAYS OF RECEIPT OF LOI/PO
- 4) DETAILED DRAWING & OTHER TECHNICAL SPECIFICATION TO BE SUBMITTED WITHIN 7 DAYS OF APPROVAL OF THE ABOVE GA DRAWINGS.
- 5) ENTIRE JOB IS TO BE COMPLETED TO THE SATISFACTION OF THE ULTIMATE CLIENT.
- 6) L-1 BIDDER AFTER AWARD OF CONTRACT WILL SUBMIT BILLING BREAK UP SCHEDULE FOR APPROVAL.

List of deviations if any to be indicated as per given format:-

Sl No	Descriptions	Parameters as per tender	Deviation if any	Comments.

Technical Details:-

Neelachal Ispat Nigam Ltd is a joint venture company promoted by M/s MMTC Limited (Government of India undertaking) and govt. of Odisha. Neelachal Ispat Nigom limited has set up a 1.0 million Ton Integrated Iron and Steel Plant at Duburi, Kalinagar Industrial Complex in Odisha. The Main Plant Consists of coke oven based on dry Quenching Technology, Sinter Plant, Blast Furnace, Oxygen Plant and Steel Melting Facility through BOF route. The main product is Pig Iron & steel Billet.

The rated capacity of Blast Furnace is 3000 T/ day of Hot Metal. The part of Fume Extraction System of Cast House was imported from ILVA along with Blast Furnace. Stack, Centrifugal Fan, Bag Filter Casing, Bag Filter support structure and Duct was brought from ILVA and erected. The Blast Furnace after Capital repair is expected to resume operation soon. Fumes and Dust will be generated during hot Metal tapping and collection in the ladle. A Fume Extraction system is proposed to be provided at cast house utilizing the existing Equipments brought from ILVA. The fume extraction system will be designed to provide a fume and dust free environment in cast house complying with the statutory standard in respect of fugitive emission & stack emission.

System Description

Dedusting System is proposed to suck fumes and dust generating at

- | | |
|----------------------------|--------------------------|
| a) Tap holes | - One each is Cast House |
| b) Tilting Running | - One each is Cast House |
| c) slag skimmer | - One each is Cast House |
| d) Hot Metal & Slag Runner | - One each is Cast House |

Suction Hoods shall be installed on Cast House Floor. Hoods shall have flange connection to facilitate dismantling as and when required.

The ducts connecting suction hood shall run below cast house floor suspended from floor beam. There is a space constraints in respect of height available between proposed duct bottom and floor. Therefore the duct s shall be suitably sized to allow height for movement of maintenance vehicle below cast house.

Duct has to be designed, fabricated and erected and connected with existing casing of bag filter. Bag filter of 6 lakh M³/Hr capacity including all its internal and cleaning mechanism is to be supplied to complete the system. The existing erected shells of bag filter is to be reused / modified to meet the design. The outlet of new bag filter shall be connected with existing installed duct connecting bag filter with chimney.

Dedusting system shall be provided with dust handling and storage system- .Screw Conveyor, Drag chain conveyor, bucket elevator, and storage silo.

The old fan 03 nos. each of capacity: 2, 00,000 lakh M³/Hr (total 6 lakh) along with the stack is to be used.

New bag filter of 6,00,000 m³/hr capacity catering to suction requirement at above points is planned to be installed at the same location without disturbing the location of fan and stack. Existing foundation of bag filter shall be used. existing bag filter casing to be reused / modified to meet the new design.

Dust collected in Bag filter will be transferred to dust storage silo with the help of screw conveyors & bucket Elevator, that to be constructed.

The scope of work of M/s Andrew Yule is as under:

A) Design & Engineering of complete fume extraction system of cast house i.e., including suction hoods of 2 cast house, suction dampers, ducting, bag filter, dust conveying storage, Electrics & PLC control. Preparation of technical specification of all components of fume extraction system for procurement by AYCL & NINL as per scope of work attached.

Immediately after the design & engineering is completed, M/s AYCL will prepare technical specification of complete system including lay out drawing, construction drawing, electrical control system etc. all as required to complete the system, M/s AYCL will hand over the same to NINL for NINL scope of supply.

B) Supply of motorized suction control damper at cast house, supply of control panel for motorized damper, suction of power & control cable of dampers.

C) Supply of all internal components of bag filter, supply of PMCC panel, supply of power control cable from MCC panel, supply of PLC with feedback provision to plant PLC.

D) Running of ID fan including deployment of specialist if require.

E) Supervision of erection of all supplied items under the scope of M/s AYCL and under the scope of NINL.

F) Testing and commissioning and demonstration of performance guarantee parameter by AYCL as under:

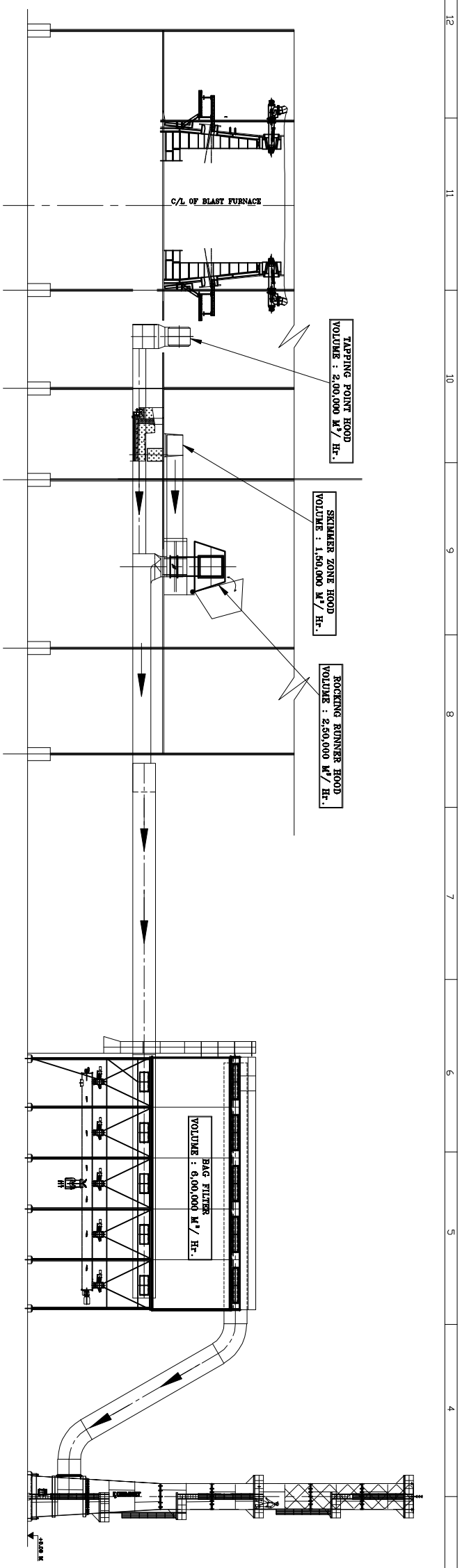
i) Standard of fugitive emission in cast house:

PM 10 micro gram /m³ : 4000

ii) Stack Emission:

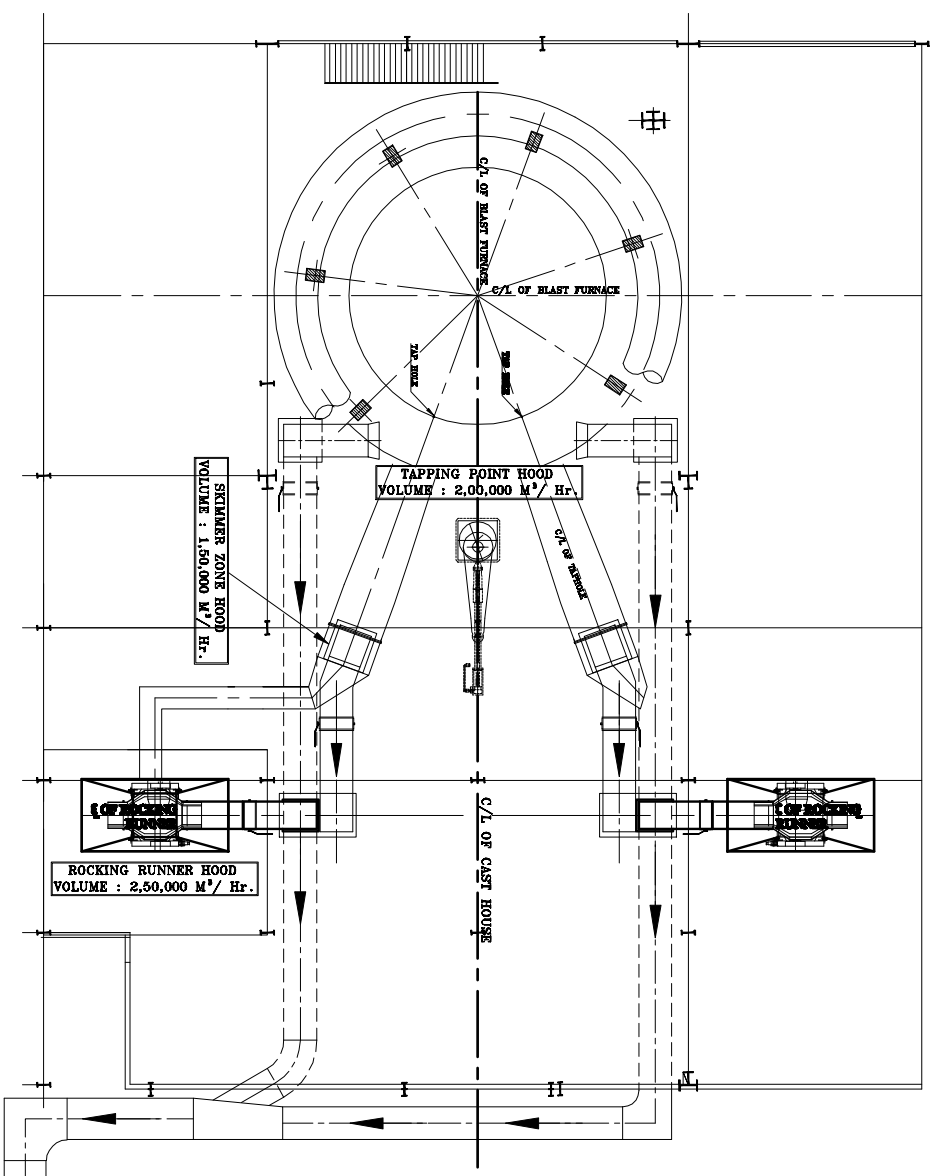
Particulate Matter mg/m³ :50

Detail scope of work under the scope of M/s AYCL has been attached as Annexure.V



ELEVATION

AIR QUANTITY SCHEDULE	
HOOD	NO. OF SUCTION PTS.
TAPPING POINT HOOD	1 NO. WORKING AT A TIME
SKIMMER ZONE HOOD	1 NO. WORKING AT A TIME
ROCKING RUNNER HOOD	1 NO. WORKING AT A TIME
TOTAL SUCTION AIR FLOW RATE	6,00,000



PLAN

APPRD.	DATE
CHKD.	
COMPLD.	
REVISION RECORDS	
NO.	DESCRIPTION
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

FOR TENDER PURPOSE ONLY

ANDREW YULE & CO. LTD
 (A GOVERNMENT OF INDIA ENTERPRISE)
 ENGINEERING DIVISION

CUSTOMER: NILACHAL ISPAT
PROJECT: DE-FUMING SYSTEM AT CAST HOUSE

DRAWN	SCALE	PROJECTION	ASSLY. DRAWING NO.	PART NO.
CHECKED	NTS		WORKS ORDER NO.	SHEET 1 OF 1
APPROVED			DRAWING NO.	REV
TITLE: SCHEMATIC LAYOUT OF DE-FUMING SYSTEM AT CAST HOUSE OF BF				