

BOKARO POWER SUPPLY CO. (P) LTD.

**HALL NO:- M-01, OLD ADMINISTRATIVE BUILDING,
ISPAT BHAVAN, BOKARO STEEL CITY – 827001**

**Reg. Office : Ispat Bhawan, Lodhi Road, New Delhi – 110 003
CIN:U40300DL2001PTC112074**

TENDER NOTICE NO.: BPSCL/MM/21-22/C-013/NIT-987/1167

Dated 19/04/2021



TENDER DOCUMENT

NAME OF WORK: Overhauling of Boiler # 9 and its Auxiliaries.

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Bokaro Power Supply Co. (P) Ltd.

(A Joint Venture of SAIL & DVC)
Hall No: - M-01, Old Administrative Building,
Ispat Bhavan, Bokaro Steel City – 827001
Reg. Office : Ispat Bhawan, Lodhi Road, New Delhi – 110 003
CIN:U40300DL2001PTC112074

NOTICE INVITING TENDER

NIT No. : BPSCL/MM/21-22/C-013/NIT-987/1167

Date: 19/04/2021

For and on behalf of BOKARO POWER SUPPLY COMPANY (P) LTD, sealed tenders in two parts, **Part - A :** Earnest Money Deposit and **Part- B :** Technical & Commercial Offer with copy of system generated acknowledgement-slip for online submission of sealed price are invited from the bidders meeting the eligibility and qualifying criteria stipulated in the bidding documents for the following work at our Power Plant.

Description of Work	Overhauling of Boiler # 9 and its Auxiliaries.
Estimated Cost (in Indian Rs.)	Rs.50,99,311.00 (Rupees Fifty Lakh Ninety Nine Thousand Three Hundred Eleven Only) Excluding GST.
Earnest Money (in Indian Rs.)	Rs. 1,00,000.00 (Rupees One Lakh) only
Period of Contract	One (01) Year from the date of commencement of work. Mobilization time: Contractor will have to mobilize men, materials, tools & tackles immediately within 7 days after receipt of intimation from BPSCL. Completion period: The completion period for overhauling work of Boiler and its aux. is 35 days to be counted from 48 hours after stoppage of Boiler. This completion period of 35 days covers the entire Boiler overhauling work as per scope of work to make the Boiler operational.
Last Date & Time of submission of Tender	18/05/2021 at 12:00 Hrs. (IST)
Bid opening Date & Time	18/05/2021 at 12:15 Hrs.

Qualifying Requirements / Eligibility Criteria :

Financial Capability:

1. Bidder should have Minimum average annual turnover (MAT) of **Rs. 15.29 Lakhs** in preceding three (03) Consecutive Financial years.
 - Average annual turnover shall be determined taking into consideration turnover of preceding three consecutive financial years. Other income shall not be considered for arriving at annual turnover.
 - Audited annual accounts along with auditor's report of the bidder should be furnished in support of the same. Where audited annual account is not mandatory as per the law, the bidder has to submit annual financial turnover during the consecutive last three (03) years, ending 31st March of the previous financial year duly certified by CA.

Technical Capability:

2. Bidder should have experience of having completed **similar work** in India in any Public Sector Undertaking / Government / Semi Government organization or joint venture thereof / Company registered under Companies Act during last 7 years ending last day of month previous to the one in which offers are invited. Value of such work order shall be either of the following :
 - a. Three similar completed works each costing not less than to **Rs. 20.39 Lakhs**
OR
 - b. Two similar completed works each costing not less than to **Rs. 25.49 Lakhs**
OR
 - c. One similar completed work costing not less than to **Rs. 40.79 Lakhs**

Similar Work means: Work order / Orders which includes / include overhauling of High Pressure and High Temperature Boiler (Capacity of Boiler not less than 220 T/hr). The scope of work should include high pressure parts, valves, burners, Ducts and Rotary equipments.

- Completed Work means the executed/completed portion of Work Order/AMC/RC, even if the work has not been completed in totality (subject to furnishing proof of executed value of work in the form of certified copies of RA Bills) along with successful work execution certificate (by the concerned authority)

3. The bidder should have a valid certificate of recognition as boiler repairer (Class I or above) issued by directorate of boiler. The bidder shall submit a self-certified copy of same as documentary evidence.
4. The bidder must submit Satisfactory Work Execution / Completion Certificate(s) for the work (s) for which copy (copies) of work order (s) is (are) being submitted as given above issued by the competent authority.
5. Bidding through a consortium is not allowed.
6. In support of their eligibility and experience, the bidder is required to submit self attested photo copies of work orders & completion certificates (by the concerned competent authority) along with the techno-commercial bid. In addition, bidder shall submit a self declaration as per format at **Annexure-VI**.
7. The bidder shall submit self certified copies of the following:-
IT Return (*Latest*), Copy of EPF, ESI Certificate, Partnership Deed / Affidavit for Proprietorship / Memorandum & Articles of Association, including changes in the Constitution of the Firm, (if any) and Copy of GST registration certificate).
8. The bidder shall submit acceptance for finalization of rates through Reverse Auction as per **Annexure**.

General Terms & Conditions:

1. Offer shall be accompanied with Earnest Money Deposit (EMD) in the form of Demand Draft / Pay Orders / Bankers Cheque Payable at Bokaro Steel City or Bank Guarantee having validity for one (01) year, from any Nationalized Bank / Scheduled Bank except Co-operative Bank drawn in favour of **Bokaro Power Supply Company (P) Ltd.** as per format available at our website: www.bpscl.com. Earnest Money can also be deposited online in our account through NEFT/RTGS/SWIFT/TT Remittance, details of which are given below. The proof of such transfer shall be submitted with the offer in the envelope titled "Earnest Money Deposit".

Banker Details as under:

Name of Bank	:	STATE BANK OF INDIA
Branch Name	:	SME BRANCH, Sector 4, Bokaro Steel City
Bank Account No.	:	35665021458
IFSC Code	:	SBIN0004231
Bank A/c Type	:	Current Account

In case of forfeiture of EMD by BPSCL, you will be required to reimburse the applicable GST to BPSCL.

2. In place of EMD, Bidders shall have the option of submitting a Bid Securing Declaration on their firm's letter head accepting that if they withdraw / modify their Bids during the period of validity without assigning any valid reason for the same or refuse to submit Performance Security / Performance Guarantee as per the relevant Clause of this tender enquiry or refuse to accept the price quoted by them in Online Price Bid / Reversed Auction within the period of validity of the same or refuse to sign the Contract Agreement upon emerging as the successful bidder, they will be suspended for a period of one year from being eligible to submit bids against tender enquiries of BPSCL. A Format of Bid Securing Declaration is provided at **Annexure X**.
3. However, Micro & Small Enterprises (MSEs) / PSU /Govt. Undertakings and Co-operative societies will be exempted from submission of Earnest Money as per government policy. For MSEs, the exemption from submitting Earnest Money will be granted only on submission of valid copy of Udyam Registration Certificate. SSI/NSIC certificate holders should also submit Udyam Registration Certificate. Further, unit claiming exemption is required to submit copy of Udyam registration certificate clearly indicating the item category for which they are registered.
4. **Offers not accompanied with Earnest Money Deposit (EMD) (as per clause 1) or Bid Security Declaration (as per clause 2) or documents for exemption (as per clause 3) will be treated as INVALID.**
5. Consortium bids will not be considered unless the provision for consortium is specifically mentioned in Tender Document.
6. If you withdraw your bid after opening of bids without giving any satisfactory and acceptable explanation thereof, you shall be debarred from participating in any tender of BPSCL for a minimum period of 01 (one) year and your Earnest Money will be forfeited.
7. **SUBMISSION OF PERFORMANCE GUARANTEE BOND FOR QUOTING UNWORKABLE RATE:**
If you quote unworkable rates, i.e. if the quoted price is less than **75%** of the estimated price and is considered for placement of order, you will be asked to justify the rate quoted. On non acceptance of justification / refusal of the same, you will be asked to furnish Performance Guarantee Bond in the form of Bank Draft/Bank

Guarantee. The amount of Performance Guarantee Bond will be equal to the difference between **75%** of estimated price and your quoted price. In case you refuse to give Performance Guarantee Bond, your Earnest Money will be forfeited and you will not be considered for participating in any kind of Tender for next 01 (one) year from the date of issue of letter to you, if order / contract is not finalised from the present tender.

In case of forfeiture of Performance Guarantee Bond, you shall be required to reimburse the applicable GST to BPSCL.

8. **Handling of Earnest Money:**

- Earnest Money will be refunded to the un-successful bidder after determination of L1 Bidder and no interest will be paid upon the same. You are requested to provide Bank Details for refund of EMD.

9. **RATE FINALIZATION**: BPSCL reserves the right to finalize the rate through either of the following modes:

- a. Opening of Online Price (*submitted on www.buyjunction.in*) submitted at the time of techno-commercial bid.

- b. Through Reverse Auction to be conducted by our service provider **M/s. mjunction**.

Note: BPSCL may ask techno-commercially accepted bidders to submit decrement in percentage (%) on their online price submitted at the time of techno-commercial bid. On line price bid alongwith % decrement shall be considered together in case online price bid is opened.

10. **BPSCL reserves the right to :**

- a) Re-tender / extend the due date of submission of offer.
- b) Accept or reject any offer / all offers in full or part at any time at any stage without assigning any reasons and without any compensation thereof to the bidders.
- c) Modify the tender documents at any stage before the due date of tender.

Note:

1. Tender documents are to be downloaded from **Website: www.bpscl.com** only.
2. Bidders are requested to visit above website regularly for any addendum / corrigendum / extension till opening of the NIT. **Any such changes shall not be published through Press advt.**

For and on behalf of
Bokaro Power Supply Company (P) Limited

(A.K. Das)
GM I/c (MM)
Tel: 8986874119
Email: purchase.bpscl@gmail.com

Conditions & Rules to be observed in submitting Tenders**1.01 Manner of Submission of the Tender**

The tender shall be divided into 02 parts as follows:-

- a) **Part A:** This part shall comprise of EMD / proof of online submission of EMD.
- b) **Part B:** This part shall comprise of Technical and Commercial details, consent on terms & conditions of NIT/ signed Tender Document along with copy of SYSTEM GENERATED **ACKNOWLEDGEMENT-SLIP FOR ONLINE SUBMISSION OF SEALED PRICE*** bid etc.

Sealed Tender *through Regd. Post/Speed Post/In-person/Courier Service* only, in an envelope containing 02 (Two) separate sealed envelopes (*as mentioned above*) with NIT No. & date of opening along with Sender's Name & Address printed on it, is to be sent to the below mentioned address:

GM I/c (MM)
Bokaro Power Supply Co. (P) Ltd.
Hall No.M-01, Old ADM Building
Ispat Bhawan, Bokaro Steel City – 827001
Ph: 06452 240380, Mob: 8986874119

*** PROCESS FOR ONLINE SUBMISSION OF SEALED PRICE :**

1. Online sealed Price Bid (% above / % below) through URL : <http://www.buyjunction.in>

The process of submission of Online Price bid is as detailed hereunder-

Step 1: Type <http://www.buyjunction.in> in the internet explorer.

Step 2: Click on Login (present on Top right side of the Page)

Step 3: Click on **View Live Auctions and Tenders**.

Step 4: In the right side open/ global tenders link will be displayed.

Step 5: Click on the link for the above mentioned tender link present under Open tenders

Step 6: Click on new user if you are not registered in buyjunction earlier. Click on Existing user in-case you have already registered in buyjunction earlier. Existing users can login with their user id and password.

Please note foreign bidders are required to select their bidding currency from the drop down menu available before proceeding further (where ever applicable).

New Users:

Steps to get your **User ID** and **Password**

1. Click on the required tender link under **“Open Tenders”**
2. Choose your Auction currency in-case any option is coming to select currency. Click on **“New User”**
3. Fill up the **“Registration Form”** and click on **“Submit”**. All fields marked with (*) are mandatory fields.
4. On submitting the filled-up registration form, an auto generated email will be sent to the email address you have mentioned in the registration form containing your User ID and Password.
5. Changing of password on first login is compulsory.
6. On receipt of the User ID and Password you become an **Existing User**. Now follow the steps of existing user to login to the auction site.

Existing Users

1. Click on the required tender link under **“Open Tender”**
2. Click on **“Existing User”**.
3. Log in with your existing user id and password for placing your bid.
4. Read through the **“Bidding Procedure”** to proceed further for bidding.

Bidding Procedure

After logging in with your user id and password you have to accept the **“Auction Terms”**.

Steps to accept the “Auction terms”:

1. Click on “**Auction Terms**”.
2. Then click on “**View term without DSC**”
3. Click on the relevant auction terms appearing under “**Term**” column.
4. Select the check box on the left-side of the relevant auction terms.
5. Click on the button besides “**Accept**”.
6. Then click on “**Submit**”.
7. A message will be displayed to you mentioning your acceptance to terms for auction.
8. It is mandatory to accept the terms of online bidding in order to proceed for submission of bid.

Steps to Submit Price Bid

1. Click on “**Bids.**”
2. Then click on “**Live Auction.**”
3. Put your login password as transaction password
4. Select the auction id and click on add to watch list.
5. Now the bidding screen is visible.

6a. For Template Bidding

1. Click on **Icon “T”** on left column of bidding screen (Which will appear separately **for each lot**).
2. A template form will open where you need to fill up the price & click on evaluate at the bottom
3. If you want to quote the evaluated price then click on “**confirm**”.
4. After clicking on the confirm button of the template window, your price will appear in the “**New Bid**” box.

6b. For Non-Template Bidding

1. Fill your Price in the “**New Bid Box**” visible on the bidding screen.
2. Select the check box at the extreme left of the bidding screen
3. Click on “**Submit**” button placed at the bottom left of the screen.
4. Bid once placed will have to be honoured.
5. You will see “**Bid Accepted**” in the “**Result**” column. This indicates that your bid is accepted and registered in the system.

Steps to take a print-out of the receipt

1. Once you have placed your bid, to download Bid Receipt, kindly click on “**Download**”.
2. Then click on “**Bid Receipt for Open Tender**”.
3. Select the auction to generate receipt.
4. Take print out of the same market-wise (Term List)/ item-wise (Auction list).

Note: For any clarification on the bidding process please contact

Mr. Anjan Buda- 9163348263 - anjan.buda1@mjunction.in

Ms. Debalina Maity - 8336991451 - maity.debalina@mjunction.in

Ms. Bingyasini Pradhan – 9163348173 – pradhan.bingyasini@mjunction.in

Ms. Priyanka Muzumdar – mazumdar.priyanka@mjunction.in

Mr. Mukesh Kumar Singh- 8873002741 – mukesh.singh@mjunction.in

A copy of System generated **acknowledgement-slip** for Online submission of sealed price bid is to be submitted along with Techno-commercial Bid.

1.02 Tender Validity Period

Validity of the offer shall be **Four (04) months** from the bid opening date. In case of extension of "Bid Submission Date", the validity will be counted from the extended bid opening date.

1.03 General Instructions:

- i) You shall have to quote price in any of the two options given below:

Percentage ABOVE with respect to Total Estimated Cost excluding GST
OR

Percentage BELOW with respect to Total Estimated Cost excluding GST

- a) If you do not quote price in terms of percentage or quote in more than one option, your offer will be rejected.
- b) In the tender schedule at the place where you have to quote PERCENTAGE, ‘**above**’ will mean mathematically **positive** and ‘**below**’ will mean **negative**.

- c) The Lowest-1 (L-1) Bidder will be the one whose PERCENTAGE is mathematically lowest and all other Bidders will be ranked/termed as Lowest-2 (L-2), Lowest-3 (L-3) and so on, in the increasing order of PERCENTAGE quoted by them.
- ii) You are requested to visit site for actual assessment of the job before submission of offer.
- iii) You shall clearly indicate that your quoted prices shall remain firm in all respects till execution of the work order.
- iv) Any conditional offer or offer having deviations is liable to be rejected.
- v) You have to submit Tender document bearing your signature and seal on all the pages along with Techno-Commercial Offer / consent on NIT's Terms & Condition. Otherwise, it will be presumed that you do not accept our terms and conditions and this may lead to rejection of your offer forfeiting your claims if any.
- You are advised to mention page no. on each page of documents submitted by you. BPSCL shall not bear any responsibility in case of any loss of documents submitted by the bidder during tender opening or thereafter.
- vi) If you are a Firm or Company, then you shall, in the forwarding letter, mention the number and names of all the partners & shall sign before submitting the same, unless the Power of Attorney holder has specifically been authorized in this respect.
- vii) Price or any indication of price shall **NOT** be mentioned in the Techno-Commercial Bid.
- viii) The sealed tenders received will be opened on scheduled opening date and time in the office of Material Management, in presence of such bidders who might choose to witness the same
- ix) In case the date of tender opening happens to be holiday, the tender will be opened on the next working day at the same time.
- x) Communication regarding date of Opening of Price-Bid to individual communication to the techno-commercially eligible bidders will be sent only to their e-mail address given in the tender documents.
- xi) Offers from two or more bidders shall summarily be rejected if they have any of the following parameters in common:
- a) Same PAN
 - b) Same GST Number
 - c) Same Postal address
 - d) Same E-mail ID
 - e) Same Mobile number
 - f) Same person signing in more than one offer/representing more than one bidder.
- xii) BPSCL reserves the right either to reject any/all the tenders without assigning any reason thereof.

GENERAL TERMS AND CONDITIONS

1. You are requested to visit site for actual assessment of the job before submitting of your offer.
2. You shall make yourself fully conversant with the actual site condition, nature of subject job(s) to be executed and terms and conditions of contract, cost of all the input materials and facilities, cost of labor, transport, incidentals, royalties etc. or any other taxes and duties before submitting the tender.
3. You will have to arrange necessary Gate Passes for your workmen.
4. You will have to deploy proper category of manpower for execution of the job.
5. You have to comply with all labor laws, ESI Act, EPF rules & AWA rules applicable in the Industry.
6. You will have to strictly adhere to the provision of various labor laws including Payment of Bonus Act 1965.
7. **Payment Default Clause:** You must ensure that payment is made to the workers as per provisions of Payment of Wages Act and CLC norms failing which BPSCL shall make payments to concerned workers directly. The amount so paid along with 15% of Administrative cum Service charge shall be deducted from any of the concerned Contractor's bill. If the provision of Payment of Wages Act is not adhered to second time, the Contractor shall be liable for banning of business dealing with BPSCL as per procedure in Vogue. Such Contractor shall not be permitted to work in BPSCL through sub-contracting also for the banning period.
8. **You have to pay your workmen as per circular / notification published by the State Government in regard to rates of payment of VDA in vogue.**
9. You will have to pay an additional amount of **Rs.4/-** to every worker engaged by you for the subject work over and above their daily minimum wages, as per BPSCL rules.
10. **AWA CLAUSE:** You shall have to pay an amount of Rs 96.15 per day on actual attendance per month (not exceeding Rs 2500/month) to the workers engaged by you in this job as Additional Welfare Amenity (AWA) as per relevant circular/notification of BPSCL.
11. You shall execute the work in compliance with the provisions of contract and contract Technical Specification and/or design drawings furnished by BPSCL in terms of the contract and as per codes and standards specified therein, wherever applicable.
12. Supervision of the work is your responsibility. Inspection of executed work will be done by Site Engineer/BPSCL.
13. If situation demands, you will have to execute the work round the clock.
14. After completion of work, Engineer-in-charge or his representative will review the work(s), you will have to rectify any defect, if found, at no extra cost.
15. You shall remove all debris, surplus materials, etc., if any, and dump the same at place as directed by the Engineer-in-charge.
16. All the applicable taxes will be deducted from your bills.
17. During contract period there will be no consideration for idle & escalation charges.
18. You will be fully responsible for any sort of unsafe activity of your workmen and all your workmen should be trained for operational safety and to avoid fire hazards of Power Plant and must have proper safety certificates issued by BPSCL before start of work.
19. You will have to follow and observe the safety & statutory requirements and comply with all safety rules & regulations applicable in the plant area as per Booklet of Safety rules for BPSCL contractors. If you are not having that booklet, same may be collected from the safety department with a request letter.
20. For working at height, you shall produce medical fitness certificate for your workmen. Height passes to be obtained from safety department, if required.
21. All the working tools & tackles, men, material etc. and safety appliances like personal protection equipment are to be provided to your workmen by you at your own cost. All safety appliances of reputed make are to be provided by you to your workmen in presence of Safety Officer of BPSCL. The list and make of safety appliances may be obtained from safety office.
22. In case any documents/information submitted by you are found to be false or containing any misrepresentation or having any fraudulent declaration in it then in such eventuality EMD will be forfeited and legal action (including cancellation of contract, banning of business dealing, criminal proceedings etc.) as deemed fit may be initiated by BPSCL against you.
23. **GST RELATED CLAUSES:**
 - a. You should quote GST as extra. If not mentioned in offer it will be considered as extra.
 - b. You have to pass on the tax benefit/savings, if any, on account of output taxes to BPSCL.

- c. You shall agree to do all things not limited to providing GST invoices or other documentation as per GST Law relating to the above Services, payment of taxes, timely filing of valid statutory returns for the tax period on the Goods and Service Tax Portal etc. that may be necessary to match the invoice on GSTN common portal and enable BPSCL to claim input tax credit in relation to any GST payable under this agreement or in respect of any part under this agreement.
 - d. In case the Input Tax Credit of GST is denied or demand is recovered from BPSCL on account of any non-compliance by you, including non-payment of GST charged and recovered, you shall indemnify BPSCL in respect of all claims of tax, penalty and/or interest, loss, damage, costs, expenses and liability that may arise due to such non-compliance. Further, in case of any differential tax liability on account of any wrong classification/valuation etc. by you, BPSCL will not be liable to reimburse any part of such differential tax, interest, penalty etc. It will be your responsibility to discharge appropriate taxes, as applicable.
 - e. You have to maintain high GST compliance rating track record at any given point of time.
24. **Banning of Business Dealings:** On arising of any situation or occurrence of any event as mentioned in Clause 6 of the Guidelines on Banning of Business Dealings, you shall be liable for action under and in accordance with the aforementioned Guidelines. The “Guidelines on Banning of Business Dealings” shall form part of the Tender/Contract and can be viewed on our website www.bpscl.com.
25. **RISK AND COST:** Failure on your part to start the work within reasonable time/ the progress of the job is poor/ for any breach of contract will entail termination of the Contract. In such an event, the job will be executed at your risk and cost by alternate arrangements.
26. **SAFETY CLAUSE:** You shall be liable for penalties mentioned below for violation of safety norms:
- i. Up to Rs.5000/-by Head of safety Engineering Department /Head of the Department where work is being done for 1st violation of safety norm, non-use of PPEs (Personal Protective Equipment) like safety shoes, hand gloves, safety helmets, goggles etc. as per work requirements by You or your workers. This condition is applicable in case of violations of Road Safety norms also.
 - ii. Fine up to Rs. 20,000/- on 2nd Violation as mentioned in clause (i) above
 - iii. You shall be debarred for one year / deregistered from taking up further contractual work in BPSCL from the date of issue of debarring / deregistering order on 3rd violation as mentioned in clause no. (i) above.
 - iv. Fine up to Rs. 10,000/- for violation in use of Full Body Harness by you or your worker for working at height (above 1.8 meter from immediate floor).
 - v. Fine Rs. 25,000/- (minimum) to Rs. 50,000/- (Maximum) for serious injuries and disabilities caused by violations as mentioned in Clause No. (i) and (iv) above.
 - vi. Independent of the above, You shall be fined Rs. 1,00,000/- (1 Lakh) or more and debarred / deregistered from taking up further contractual work in BPSCL from the date of issue of debarring / deregistering order in case any Fatal accident occurs due to violations as mentioned in Clause (i) and (iv) above.
27. **FORCE MAJEURE:** You shall not be considered in default if delay occurs due to causes beyond your control such as acts of God, natural calamities, civil wars fire, strike, frost, floods, riot and acts of unsurpassed power. Only those causes which have duration of more than seven days shall be considered in force majeure clause. In the event of delay due to such cause the delivery / completion period will be extended for a length of time equal to the period of force majeure without imposition of LD at the option of BPSCL.
28. **Work accident**
- a. You will be fully responsible for the safety of the workers employed by you. In the event of any work-accident, major or minor, your representative must take care of the injured person immediately and provide him the required treatment as suggested by the doctor. If you or your representative is not available for medical care, the injured worker will be treated in Bokaro General Hospital and the cost of treatment will be recovered from you.
 - b. You shall be fully responsible for making payment of compensation to your own workmen in respect of any accident or injury occurring to them. BPSCL will in no way be responsible for it and will remain indemnified against all such claims of compensation in such cases.
29. **You shall also maintain all records/register/return/cards such as:**
- i) Register of workmen employed by contractor
 - ii) Employment card
 - iii) Muster Roll
 - iv) Register of wages-cum-muster roll
 - v) Submission of Return
 - vi) Order book

Scope of Work:**1. OVERHAULING OF HIGH PRESSURE PARTS INCLUDING VALVES AND REPAIRING OF PENT HOUSE****A. Cleaning of the Boiler and its surrounding areas:**

- 1) All the electrical junction boxes, Field instrument enclosure, Valve actuator and Motors, Control Valves, SADC damper actuators etc. to be covered by plastic Sheet.
- 2) Removal of accumulated ash and debris from the followings areas:-
 - a) Pent house and its roof, Drum dead chamber.
 - b) Dog house and S-panel areas and buck stays.
 - c) All floors of main boiler including ground floor which will be affected due to cleaning of ash of the aforesaid areas and scraps and debris generated during the overhauling of the unit.
 - d) Ash, debris and scraps generated during the overhauling in the areas between ID fans and ESP and surrounding ID fan area.
- 3) Removing existing temporary scaffolding, scraps, ash/coal dust from top of the air ducts, hot and cold air duct of the PA Fan upto hot and cold air gate and flue gas ducts, Pipes structural members etc. confined in the main boiler.
- 4) High pressure jet cleaning of 1st pass and 2nd pass of Boiler (Pr. – 200Kg/Cm²).
- 5) Water washing of outside of main boiler, different floors, APH area (outside), etc.
- 6) Cleaning ash accumulated inside the ducts such as wind boxes, APH & its ducts and flue gas ducts up to chimney and other ducts, all expansion joints of flue gas ducts, flue gas duct from eco-coil to APH, PA hot and cold air duct up to hot air and cold air gate etc.
- 7) Cleaning top of all ducts along with its surroundings.
- 8) Ash and debris from the above mentioned areas are to be collected in gunny bags and to be disposed off from the areas as per instruction by Engineer-in-charge / BPSCL.
- 9) Necessary work force, tools & tackles, scaffolding materials, plastic sheet, winch, hoses with fittings etc required for the work to be arranged by contractor.
- 10) Transportation of Ash/debris etc. from worksite to disposal place shall be arranged by the contractor. Ash should be disposed as per direction of Engineer in charge, BPSCL.
- 11) The accumulated ash in the ground floor due to removal from pent house and other areas has to be disposed off on daily basis to avoid nuisance in surrounding areas.
- 12) External Cleaning of Boiler by Water Washing .Cleaning device and other accessories will be in the contractor's scope.
- 13) **Air Tightness Test**
 - Air tightness test upto (+50mm) of WCL and thereafter necessary repairing/replacement/correction. The Test shall be carried out using Physical Leak Detection method.
 - Stage – I will cover the section between Boiler FD Fans and APHs Air side, 1st and 2nd pass of Boiler up to APH outlet.
 - Stage – II will cover the section between APHs Flue gas outlet dampers and ESP inlet dampers/gates.
 - Stage-III will cover the section between ESP and ID Fan inlet gate. (Air tightness of ESP is checked during Air-in-Leak Test.)
 - Stage –IV will cover the sections between ID Fan inlet gate and Stack.

B. ERECTION OF SCAFFOLDING (CUPLOCK SYSTEM) IN 1st PASS, PLATEN SUPER HEATER, FINAL SUPER HEATER, SECONDARY SUPER HEATER & 2nd PASS UPTO ROOF:-

- 1) Transportation of complete set of scaffolding material from stores to various working floors of Boiler as per the instruction of Engineer in charge.
- 2) Transportation activity is to be started and completed prior to unit shut down and the intimation of unit shutdown will be conveyed in advance.
- 3) The complete cup-lock scaffolding system including bracing, approach platforms, and all other erection activities, along with the staircase in the boiler first pass, is to be erected within **05 (Five) days** from the date of availability of work front.
- 4) Platforms, approaching ladders with side railings are to be provided at various locations like water wall soot blower elevations, each elevation of Burner block (oil/air/coal compartments) in all four

corners, S-panel, water wall tubes in the burner zone, as well as other areas as per instruction of the Engineer in charge at any location within the Boiler furnace i.e. 1st pass, SSH,FSH&2ndPass conforming proper safety measures & rules.

- 5) All scaffolding erection work to be carried out strictly as per the standard safety norms.
- 6) All Scaffolding material including cup-lock scaffolding set will be arranged by the contractor at site at his own cost and after completion of work all these materials will have to be taken back by the contractor at his own cost. BPSCL will not be responsible for any damage or loss of these materials. Supply of Cup lock Scaffolding materials will be under contractor's scope.
- 7) Removal of scaffolding after completion of overhauling work: The expected date for start of scaffolding removal will be after completion of hydro test. The total scaffolding removal work has to be completed within **Three 03 (three) days** after successful hydro test.
- 8) Any other scaffolding materials like wooden planks, pipes, pipe clamps, etc. which will be required for carrying out different activities in the first pass and second pass has to be arranged additionally by the contractor.
- 9) Erection of wooden platform from left wall to right wall at **three elevations** at the following places :-
 - a) Platen SH tubes.
 - b) Eco hanger tubes & Primary SH terminal tubes.
 - c) SCWW up to roof, if required.
 - d) Secondary SH Tubes
 - e) Final SH
 - f) Any other place required in addition to the above area to be done by the contractor.
- 10) Necessary Arrangements for inspection of Pass-1 & 2 roof tubes have to be arranged by the contractor.
- 11) Complete platform in the ECO Hopper area has to be made by the contractor for the inspection and other works in the area.
- 12) Arrangements for inspection & de-metering of all bends of steam cooled spacer tubes (this includes bends just below the radiant roof) have to be made by the contractor.
- 13) Arrangements for inspection/cleaning of trough seal & its wire net have to be made by the contractor
- 14) Erection of platform outside the boiler (1st & 2nd pass), as and where required basis should be done by the contractor.
- 15) Make approach & platform for lifting & lowering of PSH/ECO coils respectively as per requirement.
- 16) Erection of scaffolding inside/ outside of flue gas duct up to chimney to be done by the contractor as per requirement basis.
- 17) All the dismantled scaffolding material has to be immediately shifted from Boiler area at various elevations to site stacking area as directed by Engineer in charge, so that no obstruction is created during boiler light up and to the personnel working in other areas for other Over Hauling and commissioning activities.
- 18) All scaffolding materials are to be transported back by the contractor within 7 days of boiler light up.
- 19) The contractor has to provide the sufficient manpower to shift the scaffolding system partially from one place to another place inside the boiler as per requirement of the job during overhauling of the unit.
- 20) **TEMPORARY PLATFORM ERECTION AND DISMANTLING IN BOILER AREA. (PER METER HEIGHT BASIS)-** As per requirement temporary platform erection and dismantling has to be made inside/outside Boiler area.
- 21) **TEMPORARY PLATFORM ERECTION & DISMANTLING INSIDE/OUTSIDE BOILER AREA (PER METER HORIZONTAL LENGTH BASIS)-** As per requirement temporary platform erection and dismantling has to be made inside/outside Boiler area.

C. VALVES

1. Servicing of Safety valves & Setting:

- a. Drum safety valves --- 02 nos.
- b. Super heater safety valve --- 02 no.

Activities involves:

- Erection of scaffolding wherever required.

- Checking of previous set points.
- Dismantling and inspection of safety valve internals and cleaning.
- Lapping of valve disc and valve seat.
- Checking of valve spindle run out and replacement, if required.
- DPT of valve spindle, disc, seat, spring etc. and redressing.
- Re-assembly and pressure blow down setting.
- Checking of supports/suspension of Safety valve exhaust pipe & silencer.
- Assistance during testing and setting of the valve at required pressure with the help of safety valve floating kit and actual floating, as per requirement.
- Removal and relaying of insulation wherever required.
- Removal of scaffolding.

Setting by simulation (i.e. Tray Test) Floating & adjustment of Safety Valves to Set and Re-set pressure as per requirement with Hyd. Arrangement).

2. Servicing/Replacement of HIGH PRESSURE VALVES

a) LIST OF VALVES TO BE SERVICED:

i. Servicing of 40-100 mm size valves- 20 Nos.

Drum Blow down valves, SH Spray Stn. Valves, Bottom Header Drain Valves, Drum/SH Vents & Drains etc.

ii. Servicing of 125-150 mm size valves- 05 Nos.

SH Start-up Vent valves/Feed Station valves

iii. Servicing of 200 mm size valves- 08 Nos.

iv. Servicing of 350 mm size valves- 01 Nos.

Activities involves:

- Removal of actuator and decoupling of hand operation arrangement as the case may be. Complete dismantling of valves and cleaning of all parts. Dismantling of hand operation arrangement and greasing/replacement of its bearings, if required.
- Repair / replacement of defective components of the valves.
- Cleaning, inspection, and DP test of valve components.
- Lapping & blue matching of valves seats. Lapping of disc/ wedge, body seat with the help of lapping tools using emery paste, lapping to be continued till satisfactory result is attained as per discretion of Engineer in charge.
- Checking of spindles straightness and correction.
- Fitting of valves with allied lines. Fitting of actuators in position after servicing. The servicing of actuators to be done as per requirement
- Commissioning of the valves.
- Checking seat passing and bonnet leakage during Hydraulic test and attending the defects after hydraulic test.

b) Replacement of Valves:

i. Size 1" (10 Nos.)

ii. Size 1.5" (04 Nos.) - Bottom header drain valves, Super heater Drain valves, CBD valves etc.

iii. Size 2" (10 Nos.) - Super heater drains, Feed injection Valves, EBD Valves

iv. Size 2.5"/3" (04 Nos.) - Feed injection Valves, IBD valves etc.

v. Size 6"(02) -Feed station valve/ Super heater start up vent

vi. Size 8"(01) - Feed station valve

Activities involves:

- Cutting of old valve/ pipe line as required to fit the valve
- Fitting of new valve and welding to the line in case of socket welded valves.
- For butt welded valves edge preparation is to be done before welding.
- Preheating and post heating treatment (stress relieving) and UT if required is to be done as per direction of Engineer in charge.
- 100% radiography of the joints.
- Checking for welding leakages during hydraulic test or charging of lines and attending the defect after isolation.
- All high pressure valves for replacement will be cut by grinder only.

D. PRESSURE PARTS

Quantity: Welding of Tubes HP Joints)-400 Nos.

Fins Welding – 200 Meter

Drum Internals- Lump sum

Repair of damaged skin casing- 100 sq. m

(Other Works as mentioned in SOW has to be done as per direction of Engineer in charge)

- 1) Inspection, D-metering and tubes / bends replacement of Boiler at different locations as per requirement, with provisions of platforms, railing supports and ladder for easy access to tube/coils. Quick erection scaffolding materials are to be supplied by contractor. S-panel scaffolding should be fully covered to prevent falling of debris into bottom hopper & to facilitate work inside bottom hopper.
- 2) Erection of scaffolding in boiler with provisions of platforms, railing supports and ladder for easy access to tube/coils. Quick erection scaffolding materials are to be supplied by contractor.
- 3) Sealing of S-Panel Bottom- so that works in Bottom Hopper may be performed simultaneously.
- 4) Checking of pressure parts for erosion / cracks or any other abnormality and replacement/rectification.
- 5) Checking/cleaning of Drum internals covering down comers to prevent ingress of foreign materials, Dismantling, cleaning, inspection of Drum internals, Replacement/Repairing of damaged components, Re-fixing and Re-aligning, cleaning and NDT & DPT test of welding joints and other components and repair and rectification. Thorough cleaning of CBD line, chemical lines and sampling lines. Checking/cleaning of sampling lines of main steam, feed line, drum and rectification of the same.

(All bends & straight portion thorough Checking and replacement as per D- metering.)

- 6) Thickness survey will have to be carried out in the following erosion prone area after cleaning the surfaces by wire brush/buffing wheel.
 - a) Water wall: Burner transition tubes, S Panel lower and upper bends & straight tubes. Gooseneck bends, sidewall bends, straight portion near ring header, upper corner transition tubes, bends of peep holes & manhole, soot blower holes, hanger tubes, rear arch water wall tube bends.
 - b) Platen S.H/Secondary SH/Final SH: Thorough de-metering / inspection and necessary replacement/repair of all bends including straight portion and offset bends and dissimilar joints. **All SUPER HEATER off set bend protection sleeves to be fixed.**
 - c) Screen Tubes (WW, SH): Thorough de-metering of screen tubes (WW, SH), replacement of defective tubes and replacement of all protection sleeves. After removal of existing protection sleeves, all tubes to be thoroughly checked manually/by D-metering and condition based replacement to be done.
 - d) PSH/Economizer/Supply tubes & Bends: **10% random checking of stubs in each header to be thoroughly checked by DPT, UT, MPI & other modern method as per IBR which will be identified jointly by the contractor & BPSCL.** Thorough De metering / inspection and necessary replacement/repair of bends facing flue gas path of Primary SH, Economizer including, straight portion and bends and thorough inspection and rectification of cassette baffle and strap joint in-between Primary SH and economizer hanger tube and thorough inspection/ DE metering and rectification of economizer hanger tubes.
 - e) Steam Cooled Wall /Screen tube: Thorough de-metering / inspection and necessary replacement/repair of bends Proper layer of refractory is to be applied in Gooseneck steam cooled area and PSH supply tube area.
 - f) Steam Cooled Spacers: Spacer tube, straight portion and bends to be replaced as per thickness survey test.

Activities Involves for D-metering:

- All the manpower, tools & tackles required for de-metering to be arranged by contractor.
- Proper scaffolding to be made in the area where de-metering is to be done.

- The surface area of tube to be DE metered is to be cleaned properly by soft wire brush/buffing wheel.
 - The de-metering to be done as per instruction of Engineer in charge after proper calibration of the instruments.
 - The report of de-metering to be submitted to Engineer in charge or his authorized representative.
- 7) Complete and thorough repairing and sealing work of boiler in Pent House, Dog House, Dead Chamber, Skin Casing, Expansion Joints, SH/PSH Crown Plates, Roof Support etc.- To be done as per requirement.
- 8) **Alignment checking and restoration of supports of each and every tubes of above mentioned areas to be done. The details are as follows:**
- Ensure healthiness of the binder clamps. Damaged clamp or clamp cut for tube repair to be replaced with new one.
 - Ensure healthiness of all cleats in binder clamps for holding of tubes. Cleats cut for replacement of tube should be replaced with new.
 - Restoration of stopper cleat welded on economizer tube adjacent to binder clamp
 - Ensure restoration of welding of binder clamp with coil holding plate.
 - Ensure healthiness of seal band and Hi-crown plates inside penthouse. In case of any damage of seal band or Hi-crown plate, they should be replaced with new.
 - Ensure healthiness of welding of seal band with SH tubes.
 - Ensure healthiness of skin casing. Damaged skin casing to be replaced by grafting and welding new plate.
 - Ensure healthiness of all tie rods & supports of spray lines, vents & drains inside penthouse.
 - Ensure availability & healthiness of all the connectors on the SH tubes
- 9) **Replacement of tubes in all zones based on inspection carried out and as per De-metering. Replacement of tubes includes:**
- a) Cutting, edge preparation. Cut edge of the tubes is to be properly covered to protect ingress of foreign material in the tubes. Fitting of tubes and offer joints for inspection before final welding.
 - b) Welding of root by TIG and subsequent MAW.
 - c) **Tangent/fins welding wherever applicable. (Limited 200 meter)**
 - d) 100% Radiography, along with UT, MPI & DPT if required as per instruction of Engineer in charge, to be done of HP welding joints, repair if any to be done free of cost. Stress relieving as per IBR norms. **WELDING JOINTS 400NOS. (PHYSICAL).**
 - e) Other critical welding joints also are to be followed by UT, MPI & DPT as per instruction of Engineer in charge.
- 10) Measurement of bowing at furnace water walls and necessary correction by replacement of tubes as much as possible from 15 m elevation to 40m elevation. Straightening of buck stay & water wall panel from 15m elevation to 40m elevation.
- 11) Inspection of cassette baffle, roof shield and erosion protection shield for Super heater screen tubes, water wall screen tubes, Super heater, Primary super heater, Platen SH, Economizer and fixing the same if found missing/eroded.
- 12) De-insulation and re-insulation as required facilitating tube replacement.
- 13) Assistance during Hydro-test. Installation of test plugs for hydro test and installation of disc in place of test plug after hydro test.
- 14) Removal of scaffolding after all necessary works and successful hydro-test.
- 15) **Box-up of boiler including boxing-up of all manholes and peep holes after repairing and by providing new seals and packings, rectification/complete repairing of peepholes if required.**
- 16) Repairing/ replacement of bottom ash hopper woven wire mesh including trough seal checking and rectification as required and recasting of damaged refractory.
- Thorough Cleaning and Repairing of Pent house, Dog house, Dead chamber etc.**
- 17) Cleaning and removal of ash from Pent House, Dog house, Dead chamber and transportation of the same through disposal chute/ gunny bags/ vacuum system etc.
- 18) Complete thorough repair and sealing work of Boiler in Pent House, Dog- house, Dead- Chamber, skin casing, Expansion joint, SH/RH crown plate, Roof support and after repairing there should not be any leakage.
- 19) Recasting of damaged refractory in pent house, dog house and dead chamber.

- 20) Inspection/Repairing/Adjustment of hangers supports of all headers of pent house.
- 21) Inspection of dead space for structural stability and deformations if any will be rectified as much as possible.
- 22) During air tightness test if any leakage is found, it is to be rectified as per requirement.
- 23) External cleaning of Boiler by water washing and transportation of accumulated ash /debris/scraps from work site to ash disposal /scrap yard area.
- 24) Boxing up all manholes after thorough repairing.
- 25) REPAIR OF DAMAGED SKIN CASING INCLUDES:
 - a) Removal of G.I sheet, glass wool.
 - b) Cutting of damaged casing.
 - c) Removal of castable refractory.
 - d) Alignment of boiler tube.
 - e) Casting refractory after cleaning tubes thoroughly.
 - f) Fitting of casing, fixing glass wool and G.I sheet.
 - g) Any other job related with the work but not specified to be done by the contractor.

26) **REMOVAL AND APPLICATION OF REFRACTORY: (Limited to 2 MT)**

- a) The damaged refractory at different locations of Boiler to be removed and after preparation of suitable refractory it is to be relayed again wherever required.
- b) Thorough cleaning of damaged refractory area and visual inspection of the same area to be done.
- c) Cleaning of damaged insulation to be carried out.
- d) Applying of refractory as per standard preparation and procedure.

Recasting of damaged castable refractory in the Boiler as per requirement including bottom Ash Hopper will be limited to 2 MT

E. Lifting / Lowering of eco coil (per coil), Qty- 20 Nos. Lifting / Lowering of Primary SH module (i.e. two coils together) of one Bank (per module) Qty- 15 Nos.

- a) All the manpower, tools & tackles required for the job is to be arranged by contractor.
- b) The Economizer coils to be lowered for de-metering and consequent any repairing of the tube/coils. The coils to be again restored to its position after work with suitable lug plates and attachments.
- c) The primary Super heater coils to be raised for de-metering and consequent any repairing of the tube/coils. The coils to be again restored to its position after work with suitable lug plates and attachments.
- d) Tubes facing flue gas & out of coil bands/pitch and their bends wherever protective shields are dislocated & tube/ bends are exposed to flue gas & the coils which will be lifted for inspection. D-metering is to be done on all the lifted coils.
- e) Necessary arrangement towards dis assemblies of coils, such as chain pulley block, sling, D cycle, and other arrangements to be done under supervisor and Engineer in charge.
- f) Resetting the coils with proper alignment.
- g) Any mis-fit to be rectified.
- h) Welding of tube joints to be done with high pressure welder and followed by Radiography test.

F. Repair / replacement of Buck stay and its support channels and beams from 8 meters height up to 40 metres.

- i) Checking of buck stay links and corner connections (supporting pins, gusset plates etc.), Seismic guides of down comers, furnace guides, leveller guides and their rectification as required. Checking of scalloped bars, stirrup plates of buck stay channels and repairing/replacement if necessary. Removal of insulation and re-insulation after necessary correction to be done. Repair replacement of connecting support beams and channels of Buckstay.
- j) Replacement of tubes or necessary alignment correction in all zones corresponding to buck stay to be replaced
- k) Cutting, edge preparation. Cut edge of the tubes is to be properly covered to protect ingress of foreign material in the tubes. Fitting of tubes and other joints for inspection before final welding.

- l) Welding of root by TIG and subsequent MAW.
- m) Tangent/fins welding wherever applicable.
- n) 100% Radiography repair if any and Stress relieving as per IBR norms.

G. Inspection, rectification, & adjustment of all hangers & supports of critical high pressure steam & feed water pipelines

- i. Thorough inspection of hanger supports of headers in pent house, dog house and dead chamber and their rectification/adjustment as required. Cold setting and hot setting of the hangers to be done.
 - ii. Cold and hot settings of all hangers of critical pipes like MS, Feed line, HP Steam Header etc. are to be done.
 - iii. Erection of scaffolding wherever required for the job.
 - iv. Cleaning, Servicing, Rectification / adjustment of all Hanger supports.
 - v. Load setting of the hangers supports for the thermal as well as statics loading.
 - vi. Repairing of Turn Buckle as required.
 - vii. Fixing of Bracket and others accessories properly by welding / bolting.
 - viii. Fabrication of Hanger supports, if required.
 - ix. Cold reading would be recorded.
 - x. Hot reading would be taken after stabilization of unit full load.
- H. Fabrication of staircase, platform and strengthening support of ducts, dampers, RC Bunkers, Ball mills and other areas of Boiler as per instruction of Engineer in charge. One coat of approved steel primer to be applied on these structural jobs. (Qty. – 10 Ton).

2. RENOVATION OF THERMAL INSULATION AND AL-CLADDING: Replacement of damaged insulation of boiler 1st and 2nd pass, Flue gas ducts and Hot air ducts. Supply of insulating material, cladding etc. will be supplied by BPSCL and application to be done by contractor.

- The Scope includes 1800 m² of insulation work.
- The Insulating material/ GI/Aluminium / corrugated Sheet has to be transported from BPSCL store/Site store to work site(s) as per the instructions of the Engineer in charge.
- Erection of scaffolding wherever required for the job.
- All the damaged insulation is to be properly removed without any damage to the surface on which it is applied.
- Lug welding on insulation area to be done, wherever required.
- Re-insulation of damaged / bare area in the main boiler, valves, pipes and, APH etc.
- Old insulation of different headers in pent house has to be removed for checking and carrying out DPT of stubs and there after re-application of new wool mattress.
- In addition to above, damaged insulation of other ducts such as Hot air duct, APH out let to ESP inlet ducts, ESP outlet ducts are to be replaced.
- This is then to be applied in the required area with adequate precautions/protection to the personnel carrying out the job.
- The insulating materials and cladding/ GI sheet will be provided by BPSCL but the screws, sealing putty etc. have to be arranged by the contractor at his own cost.
- Supply of cup-lock scaffolding materials for the insulation will be in contractor's scope.
- Removal of damaged insulating material from the site to BPSCL scrap yard on daily basis.

3. Overhauling of Burners & SADC System:

Quantity- Coal Nozzles: 24 nos.

Oil Burners: 12 nos.

Gas Burners: 04 nos.

SADC: All 4 Corners

BURNER TILTING MECHANISM- All 4 Corners

- a) Erection of scaffolding inside furnace to approach each of the burners.
- b) Cleaning of wind box and inspection for any damage and repairing of leakages, if any including expansion joints repair
- c) Inspection, repair of SADC dampers including seals and ensuring mechanical freeness and full open/close of the dampers.
- d) Making free and repairing of Aux. Air Dampers and all fuel air dampers.

- e) Checking & repairing of supporting truss in wind box.
- f) Dismantling of coal and air nozzle assembly including coal pipe bend dismantling.
- g) Dismantling of oil burners, dismantling of Igniter & Scanner Guide pipe & re-fixing the same.
- h) Inspection of coal and air nozzle and oil burner components.
- i) Assembly of coal and air nozzle assembly.
- j) Servicing and assembly of all oil burners including nozzle with tip. Oil line, steam tracing lines and air lines – Replacement of all steam tracing line and steam line at bends and damaged straight portion to be done and re- insulated which will be identified jointly by the party&BPSCL.
- k) Cleaning Servicing and Assembly of all gas burners.
- l) Repairing &Replacement of 24 nos. of coal compartment assembly
- m) Adjustment of coal/air nozzle, oil burners and overhauling of burner tilting mechanism at all the four corners including setting & alignment.
- n) Final satisfactory operation checking in loaded condition with power cylinder.
- o) Adjustment of SADC dampers (at all the four corners).
- p) Partition plate and Expansion joints of wind box to be checked and repaired.
- q) Rectification/repair of wind box leakages and damaged area of wind box (both LHS & RHS).

Detailed Scope for Replacement of Coal Nozzle:

- Proper lighting inside the boiler.
- Opening wind box manholes.
- Inspection of coal burners.
- Dismantling the fuel inlet elbow. Repair/replacement of fuel inlet elbow as required.
- Dismantling the outer and inside casing.
- Detaching that coal burner from power cylinder.
- Taking out coal nozzle along with tip.
- Transportation of materials from main stores to working site.
- Replacement/repairing the damaged one as per direction of Engineer in charge.
- Fixing the coal burner along with tip.
- Alignment with other tips in that corner.
- Boxing up inside and outside cover and fuel inlet elbow.
- Connecting with power cylinder and check for smooth operation.
- Any other defects to be rectified by the party.
- Any other job if not mentioned and required for execution of work has to be done by the party.
- Job area should be cleaned by removal of all scraps and debris to scrap yard by contractor.

Detailed Scope for Servicing of Burner Tilt Mechanism:

- Proper lighting inside the boiler.
- Operating the burner tilt of four corners.
- Checking any abnormality of air/coal/oil nozzle tips.
- Setting right the nozzle tips from outside.
- Checking any jamming of four corners of burner tilt mechanism.
- In case of jamming of any corner, de-linking power cylinder.
- Making free and smooth operation of that corner without power cylinder.
- Fixing linking with power cylinder.
- Operate smoothly with power cylinder.
- Any other work not specified but related with this job that also has to be done.

Detailed Scope for Servicing of SADC:

- Opening of manholes.
- Inspection and clean accumulated ash of wind box.
- Making scaffolding wherever necessary.
- Detecting the leakages points.
- Repairing the leakages points.
- Detecting the defect in fuel air and auxiliary air dampers.
- Making proper sealing of dampers.
- Making free of each damper.

- Repairing supporting truss and expansion joints.
- Any other related job if not mentioned and required for execution of work has to be done by contractor.
- Job area should be cleaned by removal of all scraps and debris to scrap yard by contractor.

4. Inspection, Repair and Re-visioning / Replacement of Gates & dampers: Thorough internal inspection of all the dampers and blades should be done by party.

a) Condition based Servicing of following dampers /Guillotine gates :

- ID fan suction dampers: 02nos
- FD Discharge damper: 02 nos
- FD Fan Suction damper: 02 Nos.
- PA Immediate Discharge damper: 03 Nos.
- PA Fans Cold & Hot air dampers: 03 Nos.
- PA Fan suction damper: 03 Nos.
- PA Fan Fouress dampers: 03 Nos.
- Mill inlet dampers: 06 Nos.
- ID Fans suction and discharge side isolating Gates : 04nos

Scope of work:

- Removal of accumulated ash from the dampers area.
- Cleaning and inspection of damaged, worn out portion to be carried out.
- Driving mechanism along with shaft and supports are to be dismantled and cleaned.
- Erection of safe and suitable scaffolding.
- Repairing /replacement of damper blades.
- Flappers of the dampers are to be set properly so that there should not be any passing.
- Calibration of dampers with full open and full close with actuator. In case of damage/non availability of dampers the same to be fitted by the Party as per direction of Engineer in charge.
- In case deflector blades are found partially eroded/damaged then the same have to be repaired from 6mm /8mm S.S plate and to be fitted in the system.
- Servicing/Rectification of movement of links i.e. gland followers of dampers etc.
- Checking operation 0-100% of dampers.
- All sealing arrangements to be checked and rectified with proper procedure.
- Operation checking of various dampers for complete opening / closing.
- Box up of all inspection doors / manholes with ropes / gaskets as applicable.
- All arrangements to be done for the job.
- During trial run, any problems raised, to be rectified and smooth operation to be confirmed.
- Any other related job not mentioned but required for successful completion of work has to be done by the contractor as directed by Engineer in charge.

b) ID Fans suction and discharge side isolating gate seal repairing (4 Nos.):

- Making necessary scaffolding/Platform as required by contractor.
- Dismantling of existing damaged seal by opening nut and bolts and locking plate.
- Fabrication of Box with the help of 3.15 mm MS plate and subsequent running welding from three sides (Both vertical sides + lower side of the gate) to avoid air ingress and seal to be replaced in the upper side of the gate by fitting nut and bolts on locking plate after placing seal item inside with necessary fittings from both top corners of the gate to stop air ingress.
- Fabrication of seal material as per required dimension if required at site by contractor.
- Fitting of seal by nut and bolts and locking plate as per required dimension in all the inlet and outlet gate.
- Removal of scraps to scrap yard after completion of the work.
- Operation checking of all gates for complete opening / closing after the job.
- Any other job not specifically mentioned but required for completion of the work to be done by contractor.
 - Cleaning and inspection of damaged, worn out portion to be carried out.
 - Driving mechanism along with shaft and supports are to be dismantled and cleaned.
 - All sealing arrangements to be checked and rectified with proper procedure.
 - Proper sealing to be fully checked and confirmed.
 - Sealing Sim /plates to be attached with seal holding plate properly to assure full sealing of gate.

- All arrangements to be done for the job.
- During trial run, any problems raised, to be rectified and smooth operation to be confirmed.

5. Replacement of RC Feeder Outlet Sliding Gate.

- Disconnecting of RC Feeder gate from pneumatic cylinder drive rod.
- Dismantling of all nut – bolts etc. of RC Feeder gate with transition piece.
- Dismantling of transition piece below RC Feeder gate and its repairing of worn out portion / replacement by new one.
- Taking out RC Feeder gate for repairing
- Replacement of brass strips, wire braided rope and metal up and grinding of gate with drive.
- Any modification required for leakage free operation of RC gate.
- Fitting of RC Feeder gate and transition piece below it and connection of gate with drive.
- Checking of smooth operation of gate.

6. Replacement / Repair of RC Feeder Outlet Reducer.

- Removal of fasteners of Sleeve- on – Coupling and lifting of connecting piece above coal feeder.
- Loosening of feeder base bolts & Seal Airline to feeder to be disconnected.
- Shifting/ displacing of feeder for access to discharge side of feeder.
- Removal/ Cutting of Raw Coal Inlet chute.
- Lifting of inlet chute from top and placement of new/ repaired inlet chute into position.
- Placement of feeder & bolting of all fasteners of feeder & Sleeve- on – Coupling.
- Connection of Seal Air lines & alignment of feeders.
- Any other related work as per direction of Engineer in charge, BPSCL.

7. OVERHAULING OF FANS

A. Overhauling of ID Fans :

- Erection of scaffolding required for execution of work wherever required.
- Checking of impeller, Impeller blades, shaft, and other necessary parts related to fan shaft and impeller.
- Checking and repairing of conical cover, impeller seals (replacement if required) including complete hard facing of Impeller & Internals, repairing of fan casing and repairing/replacement of support.
- Levelling of shaft.
- Checking of fan bearings foundation and there after rectification.
- Checking of Fan Bearings. If required replacement of bearings to be done
- Inspection of fan couplings and replacement if required.
- Alignment of fan with motor and hydro coupling.
- Servicing /Replacement & cleaning of Hydro-coupling Coolers, Hydro test of Hydro-coupling Coolers to be done if required. If any leakage found in coolers, it is to be plugged and if required to be replaced.
- Removal of scaffolding after static balancing and commissioning of the fans. Restoration of Gap/Sealing system between ID fan suction cone and impeller as per OEM guidelines.
- All base layer and hard facing electrodes will be provided by the contractor.
- ID fan performance test to be done by the party as per OEM guidelines.
- After trial run any defect (vibration, temp. rise of oil brgs, abnormal sound etc.) has to be rectified by the Party.

If required replacement of ID Fan shaft along with impeller

- Removal of Bearing, coupling, fan casing, decoupling and removal of hydro-coupling, motor and other associated works to be done for proper replacement of ID fan Impeller and shaft.
- Assembling of all parts including the parts which were opened up, alignment and other associated works to be done.
- Static balancing to be done.
- Take trial run and attend the defects observed during trial.

B. Overhauling of FD Fans :

- Erection of scaffolding required for execution of work wherever required.
- Checking of impeller, Impeller blades, shaft, and other necessary parts related to fan shaft and impeller.

- 3) Checking and repairing of conical cover, impeller seals (replacement if required) including complete hard facing of Impeller & Internals, repairing of fan casing and repairing/replacement of support.
- 4) Decoupling of Fan from motor, shifting of motor, Inspection of coupling and its replacement if required.
- 5) Inspection of fan inner and outer bearings, replacement if required.
- 6) Leveling of shaft.
- 7) Alignment of fan with motor and coupling.
- 8) Thorough cleaning of fan suction strainer.
- 9) Trial run of the fan including static balancing if required.
- 10) After trial run any defect (vibration, temp. rise of oil brgs, abnormal sound etc.) has to be rectified by the Party.

If required replacement of FD Fan shaft along with impeller

- Removal of Bearing, coupling, fan casing, decoupling and other associated works to be done for proper replacement of FD fan Impeller and shaft.
- Assembling of all parts including the parts which were opened up, alignment and other associated works to be done.
- Static balancing to be done.
- Take trial run and attend the defects observed during trial.

C. Overhauling of PA Fans :

- 1) Erection of scaffolding required for execution of work wherever required.
- 2) Checking of impeller, Impeller blades, shaft, and other necessary parts related to fan shaft and impeller.
- 3) Checking and repairing of conical cover, impeller seals (replacement if required) including complete hard facing of Impeller & Internals, repairing of fan casing and repairing/replacement of support.
- 4) Decoupling of Fan from motor, Inspection of coupling and its replacement if required.
- 5) Inspection of fan inner and outer bearings, replacement if required.
- 6) Levelling of shaft.
- 7) Alignment of fan with motor and coupling.
- 8) Thorough cleaning of fan suction strainer.
- 9) Trial run of the fan including static balancing if required.
- 10) After trial run any defect (vibration, temp. rise of oil brgs, abnormal sound etc.) has to be rectified by the Party.

If required replacement of PA Fan shaft along with impeller

- Removal of Bearing, coupling, fan casing, decoupling and other associated works to be done for proper replacement of PA fan Impeller and shaft.
- Assembling of all parts including the parts which were opened up, alignment and other associated works to be done.
- Static balancing to be done.
- Take trial run and attend the defects observed during trial.

8. Overhauling of ID Fan Hydro coupling (01 No.).

- Decoupling of hydro coupling from Fan and Motor side.
- Removal of Hydro coupling from foundation.
- Dismantling of hydro coupling parts and its bearings.
- Inspection of all its internal parts: Primary / secondary wheel, Primary / secondary shaft, all bearings, scoop tube and its housing etc.
- If needed replacement of bearing.
- Removal, Re-visioning & refitting of gear oil pump.
- Assembly of hydro coupling and its fitting on foundation.
- Its alignment with Motor and Fan.
- Take trial run and attend the defects observed during trial.

9. Grafting & welding of duct walls/ fitting diversion plates:

- Erection of safe and suitable scaffolding for the job wherever required.
- Thorough inspection and repairing of flue gas duct from Eco outlet to APH inlet, APH outlet to ESP inlet, ESP outlet to ID inlet to chimney including ESP casing.
- Thorough inspection and repairing of PA duct from PA fans outlet to APH inlet, from APH outlet to Hot PA Header, PA Header to Cold PA header.
- Removal of insulation and repairing of damaged portion of casing/ducts and re-insulation after Air tightness Test. Thorough inspection and repairing of S. Air duct from FD fans outlet to APH inlet, APH outlet to Wind box.
- Thorough inspection and replacement of all duct supports like pipes, angles, beams channels etc. with proper size and eroded/ corroded plates to be replaced by new plates and is applicable to all ducts).
- Fabrication and fitment of diversion plates in duct as per instruction of BPSCL Engineer in charge.
 - Thorough cleaning of inside and outside of duct with de-insulation if required.
 - Grafting, cutting of damaged plates and removing the same.
 - Fabrication of the damaged area with new plates provided with angle, channels wherever required is to be done.
 - Welding with edge preparation (if required) to be done.

10. Inspection, Repair / Replacement of expansion joints:

- Cleaning the area.
- Thorough inspection of all the compensators in Boiler area and ducts.
- All expansion joints have to be repaired and guarded with MS sheet from inside to avoid erosion/air ingress of the same as per requirement.
- After repairing of Expansion Joints from inside, sealing arrangement with mineral wool mattress followed by proper insulation to cover the full expansion joint from outside to arrest complete air ingress.
- Visual inspection of expansion joint. (Proper scaffolding to be erected at the site to carry out the whole work properly.).
- Identification of damaged expansion joint
- Replacing or repairing the expansion joint.
- Repairing the damaged one with welding with proper specified procedure.
- Replacing the damaged one with new one with proper specified procedure.
- Alignment, fittings are to be done. If any problems arises, same to be rectified.

Application of non metallic fabric cloth over expansion joints:

- Cleaning & Visual inspection of whole expansion joint.
- Measuring the whole expansion joint.
- Making metal strip with hole and attaching the same with old expansion joint to be made.
- Ensuring sealing of expansion joint with duct. Corrective action if required.

11. Cleaning inspection and repair of Tubular Air Pre-heater blocks:

- Through cleaning and inspection of tubular APH blocks.
- Rectification to be done if any damage found.
- Cleaning of each tube with high pressure jet.
- Application of castable refractory on block tops if found damaged.
- Making approach for inspection of each tube.
- Air leak test of tubes and plugging of tubes if required.
- Final box of APH after getting clearance from Engineer in charge.

12. Painting of Boiler structures

- a) Erections of scaffolding for making approach up to required painting area and dismantle the same after completion of job.
- b) Cleaning the surface area before painting.
- c) Painting of structures, platforms & railing (it includes angles, beams, channels, Buckstay, ribs & stiffeners) of complete boiler at all elevations, its auxiliaries, FD Fans and ID Fans with synthetic enamel paint (supply & application) to give an even shade by two or more coats with application of paint. (Synthetic enamel paint (Indigo Blue / Dark Blue, Black & Yellow of make Berger/Asian/Nerolac), thinner, brush etc. shall be supplied by contractor)

SPECIAL TERMS & CONDITIONS:

1. **Discipline:** The contractor's employees should maintain proper discipline and behavior and do not cause any hindrance to smooth running of the Power Plant or in execution of duties by BPSCL Employees. Controlling Officer is fully empowered to ask the contractor to withdraw any worker/workers on charges of misconduct, incompetence/negligence in discharge of duties and such worker/workers may not be deployed without his permission.
2. **Discontinuation of Job:** In case the job is found discontinued by the contractor within the contractual period, BPSCL shall have the right to award part or full job to any other outside agency and the expenditure thereof shall be deducted from their bill/security deposit.
3. **Withdrawal of workmen:** In case any worker is found hampering the interest of the project in any way BPSCL shall reserve the right to take appropriate action. In such case, the contractor shall have to replace such workmen within 24 Hours of receiving notice from the controlling officer.
4. **Idle Labour Charge:** BPSCL shall not be responsible for payment towards idle labour charge under any circumstances.
5. **Safety of Working Personnel:** BPSCL in no way shall be responsible for safety of the contractor's workmen. Contractor should supply the necessary protective devices for safety of their workmen and the contractor will ensure that necessary safety precautions have been taken for the contractor's workmen.
6. **Checking:** Controlling officer or safety officer at his discretion may check/examine any of the contractor's tools/scaffolding/working condition etc. and if unsatisfied he may suspend the job temporarily till proper measure is taken from the contractor's end.
7. Contractor shall be responsible for the compliance of all the rules and regulation of the plant as detailed but not to be limited to the following prevailing Acts:
 - a. Factory Act.
 - b. Minimum Wage Act.
 - c. Bonus Act.
 - d. Contract Labour (Regulation & Abilities) Act as prevalent and the rules and regulations made therein from time to time and shall indemnify and hold harmless the purchaser/owner against any claim arising out of compliance or any non-compliance and/or accident to the third party.
 - e. IBR norms to be followed strictly.
8. **Pollution Control & Occupational Health Care :** The contractor will take all steps to follow:
 - a) The Water (Prevention and Control of Pollution) Act, 1974
 - b) The Air (Prevention and Control of Pollution) Act, 1981
 - c) The Environment (Protection) Act, 1986
 - d) Manufacture, Storage and Import of Hazardous Chemical Rules 1989
 - e) Hazardous Wastes (Management and Handling) rules 1989
 - f) The National Environmental Tribunal Act, 1995
 - g) Compliance with batteries (Management & Handling) rules, 2001 as amended and orders made under and all other acts and rules in connection with pollution control in your work area. The contractor will also take all steps for Occupational Health Care of your workers and employee working at BPSCL.
9. T & P like lifting and pulling tools etc. being used by the contractor must be tested and inspection must be carried as per statutory requirement of state govt. factory act / safety norms and a copy of test certificate is to be submitted to engineer in-charge/his representative.
10. The contractor should furnish P&T / Mobile Numbers of the responsible contact person(s) to make available for emergency need to avoid any unforeseen situation.
11. **Safety measures:** The workmen under the Contractor's control working in the vicinity of running equipment are to be given proper safety gears and to be careful to avoid any accident, loss of life or damage to BPSCL property. Guide line for action in respect to safety measures for the job are specified hereunder: -
 - a) Contractor has to ensure safety of his workers at site, while working and to provide all kinds of safety equipment required for the job like safety belts/safety ladder/safety net personal protective devices etc.
 - b) Contractor will be liable to pay compensation, if any, to his worker for accident "Arising out and in course of employment", under the Workmen's compensation Act.

- c) Before execution of the job at site Contractor will have to take clearance from BPSCL's safety department.
 - d) Safe scaffolding as certified by Safety Department to be used before start of work.
 - e) Contractor shall have to abide by Mandatory Safety clauses enclosed.
 - f) BPSCL, in no way shall be responsible for safety of contractor's workmen.
12. **MANDATORY CLAUSES OF THE WORK CONTRACT & TENDERER'S RESPONSIBILITY: -**
- 1. The contractor shall be vigilant to ensure provisions of Factories Act 1948 and other statutory provisions as applicable.
 - 2. The contractor must ensure use of Personal Protective Equipments by their workers.
 - 3. Office works: The contractor should maintain an office at site where they will maintain log book in which daily progress, remarks on healthiness of the equipments and major findings will be recorded. Contractor will maintain and furnish everyday manpower strength to the concerned representative of the controlling officer for monitoring of effective manpower utilization.
13. **Payment Terms :**
97% of contract value will be paid on pro-rata basis duly certified by Engineer In-Charge and balance **03%** will be retained as security deposit which will be released after completion of defect liability period.
- The expression satisfactory execution of the order shall mean fulfillment of all obligations arising out of and in connection with the Contract. In case of default in satisfactory execution of the order, the security deposit shall be forfeited.
- Amount of penalty and/or Liquidated Damages imposed (if any) will be recovered from Bill / Security Deposit. If the amount of Bill / Security Deposit is not sufficient, the bidder will be required to pay the balance amount to BPSCL. If you do not pay the balance amount, the same shall be deducted from any sum or sums which may be due or may become due to you from BPSCL on any account whatsoever.
14. **Penalty Clauses :**
- a) Contractor shall be intimated about commencement date of job 21 days in advance. If they fail to start the work as per schedule a penalty @ Rs. 10,000/day will be imposed.
 - b) Any delay in completion of work (attributed to contractor) beyond scheduled time of 35 days, a penalty @ Rs. 10,000/day will be imposed.
 - c) Any defect remaining unattended beyond the scheduled time will attract a penalty @Rs. 500/ defect in addition in addition to the rectification of defect at no additional cost to BPSCL.
 - d) Any defect occurring within defect liability period due to poor workmanship will attract a penalty @ Rs. 500/ incidence in addition to the rectification of defect at no additional cost to BPSCL.
15. **Precautionary Measures to Avoid Damage of other Equipments:** Contractor must take every possible care for safety of equipments and property of BPSCL. Any loss to this effect will be your responsibility entirely and you shall have to make good for the losses and extra expenditure incurred by BPSCL thereof.
16. **Defect liability period:** Contractor shall attend to defects attributable to their faulty workmanship up to a period of 6 months from the date of 1st Light up of boiler after overhauling.
17. **LD Clause:** BPSCL reserves the right to recover a sum equivalent to 0.5% of the delayed work for each week of delay or part thereof subject to maximum of 5% of the total value of the order as Liquidated Damage due to delay in completion of work attributable to the contractor.
18. Proper care should be taken to ensure safety and security of BPSCL property during the job. In case of any damage the contractor have to repair them at their own cost and arrangement.
19. **BAR CHART/PERT CHART:** Contractor has to submit Bar chart / Pert Chart well before commencement of overhauling.
20. If required expert services are to be hired for Boiler Pressure parts, FD Fans, PA Fans, ID Fans, etc for successful completion of the work at no extra cost to BPSCL.
21. For high pressure welding D & H make electrodes or electrodes of equivalent standard should be used.
22. All HP welding joints are to be followed by 100% radiography along with UT, MPI & DPT if required as per instruction of Engineer In charge. Other critical welding joints also are to be followed by UT, MPI & DPT as per instruction of Engineer in charge.

23. Scope of supply of Contractor:

- a. All payments will be made as per actual execution of work.
- b. Contractor has to engage a site in-charge on the very first day of commencement of work and the site in-charge should not leave the station during the overhauling period without the permission of the Engineer in charge / BPSCL.
- c. Necessary workforce required for the subject work shall be arranged by the contractor. Adequate number of skilled and unskilled manpower will have to be engaged for successfully completing the entire scope of work within the stipulated time period and also considering the fact that parallel work need to be taken up at several points.
- d. Argon gas, DA & Oxygen, All electrodes including hard facing electrodes for Burners & ID fans, as required for overhauling shall be arranged by contractor.
- e. Tools and tackles including testing equipments, welding machines, cutting accessories, grinding machines, argon gas with all accessories/cutting accessories, TIG welding kits, TIG welding wires, etc required for the job shall be arranged by the contractor . Consumable e.g. DA & O2, gas cutting sets, Welding electrodes, hacksaw blades, grinding wheel, emery paper and cloth, lapping tools, lapping compound, Markin cloth, cotton waste, petrol, kerosene, grease, heating lamps, lighting lamps, rustolin, holdtite, Bectol cotton waste, wire brushes, molykote, hylomer, scaffoldings ,heating and cutting gases etc. shall be arranged by contractor.
- f. Hydra jet machine for high pressure cleaning of boiler shall be arranged by contractor.
- g. Necessary tools for dismantling of ID/FD/PA Fan if required.
- h. Supply of all kind of materials including temporary set up, Pumps for hydro test if required, plugs, and different measuring instruments etc. under the scope of the contractor.
- i. Electric winch at least 1 no. , Hydra for material lifting and transportation - 1 no.
- j. Scaffolding materials to be supplied by the contractor.
- k. Necessary testing equipment/instruments/consumables required for boiler overhauling and inspection of boiler pressure parts as per scope of work.
- l. All technological wastes generated during execution of overhauling works at various places shall be shifted by contractor to a place identified by BPSCL engineer in charge by their own arrangement.
- m. Contractor will have to arrange for transportation of spares/materials from store to work site and scraps from work site to scrap yard.
- n. Materials required for temporary lighting for overhauling purpose shall be arranged by contractor.
- o. All coupling Pullers, jacks, plate bending machine, tube/pipe bending machine, etc has to be arranged by contractor.
- p. Contractor shall have to follow all safety rules at the time of execution of the work. All safety gadgets and appliances as required for maintenance of the Boiler & Auxiliaries shall be supplied to the workmen without any extra cost to BPSCL.
- q. Co-ordination with various statutory bodies for compliance, as applicable.
- r. Works is to be carried out on round the clock basis as per requirement of BPSCL Engineer in charge.
- s. The Contractor has to maintain the minimum of T&P items throughout the overhauling period.
- t. The Contractor shall be responsible for all the liaison work with the Boiler Directorate.
- u. Further, all the certified H.P. welder(s) deployed by the contractor in any time during the period of the contract to be engaged for job of Boiler Pressure Parts. Photocopy of the valid “Qualified Boiler welder’s Certificate” in Form issued by the Boiler Directorate, Govt. of India or any State Govt. for a Suitable Classification in respect to size, material, process, class, electrodes, fillers, etc. has to be submitted to the BPSCL Engineer in charge. The certificate in original to be shown to BPSCL Engineer-in- Charge as instructed.
- v. Contractor has to comply with all the statutory requirements of IBR (Directorate of Boiler, as where & when applicable) for the jobs of pressure parts. The party will act as a liaise (excluding payment of statutory fees) with Boiler Directorate. The welders deployed by contractor may have to undergo procedure –cum-simulation test, if so desired by BPSCL Engineer in charge. If the performance of the HP Welder is found to be unsatisfactory, the contractor has to arrange for a new HP Welder.
- w. Contractor has to obtain relevant IBR certificate (Boiler repairer certificate) prior to start of the jobs of Boiler Pressure parts.

- x. Contractor has to do fabrication job as & when required basis.
- y. Tube bending machine if required is to be arranged by contractor.
- z. At least 02 nos. workable D-metering (Thickness survey) machine, with calibration certificate, along with operator is to be arranged by the contractor throughout overhauling.

24. Scope of supply by BPSCL.

- a. All spares and consumables which are going permanently with the equipment like insulating materials with cladding ,refractory, fastening components, lubricants, jointing components, gasket shall be provided by BPSCL.
- b. All structural materials such as MS plates, angles, channels, beams required for fabrication and strengthening job will be provided by BPSCL
- c. Special T&P which have been supplied along with main equipment as available with BPSCL shall be provided

25. Facilities to be provide by BPSCL.

- a. Water, air, electricity, refractory/insulating materials etc. will be provided by BPSCL (free of cost). However, connecting air/electric cables, water hoses and other accessories for sources of water/compressed air/electricity has to be arranged by contractor.
- b. Workshop facility available at BPSCL.

PRICE BID / RA FORMAT

Special Instruction –

1. In the event of L1 Bidder backing out prior to placement of order, in addition to forfeiture of EMD, the bidder shall be suspended for a period of 01 (one) year from the date of issue of suspension order.
2. Breakup (*as per given format*) shall be submitted by the L1 bidder. In case of refusal of L1 bidder to submit the same, EMD will be forfeited and the bidder shall be suspended for a period of 01 (one) year from the date of issue of suspension order.
3. **Price Basis: L1 bidder will be decided on mathematically lowest percentage.**

Sl. No.	Description of Job	Qty.	Total Estimated Cost (excluding GST)	To be quoted by Bidder
1.	Overhauling of Boiler # 9 and its Auxiliaries. (As per Scope of work)	As given below	Rs. 50,99,311.00 (Rupees Fifty Lakh Ninety Nine Thousand Three Hundred Eleven Only) Excluding GST.	Online Price Bid (% above / % below with respect to Total Estimated Cost excluding GST) through URL : http://www.buyjunction.in

Note:

1. Goods & Service Tax: EXTRA as applicable
2. Please provide following details :

1.	GSTIN	
2.	Service Accounting Code No.	
3.	Applicable GST Rate	
	CGST (in %)	
	SGST (in %)	
	IGST (in %)	

Price Break-up Format				
Sl	Description	Qty.	Rate / Unit (Rs.)	Amount (Rs.)
1.	Overhauling of high pressure parts including valves and repairing of pent house. (As per scope of work)	1		
2.	Renovation of thermal insulation and AL-cladding. (As per Scope of work)	1800 Sq. M		
3.	Overhauling of Burner & SADC System (As per Scope of work).	1 Boiler		
4.	Inspection, Repair and Re-visioning / Replacement of Gates & dampers (As per Scope of work)	1 Boiler		
5.	Replacement of RC Feeder Outler Sliding gate (As per Scope of work)	06 Nos.		
6.	Replacement / Repair of RC Feeder outlet reducer. (As per Scope of work)	06 Nos.		
7.	a. Overhauling of ID Fans. (As per Scope of work)	02 Nos.		
	b. Overhauling of FD Fans (As per Scope of work)	02 Nos.		
	c. Overhauling of PA Fans (As per scope of work)	03 Nos.		
8.	Overhauling of ID Fan Hydro coupling (As per Scope of work)	01 Boiler		
9.	Grafting & welding of duct walls / fitting diversion plates (As per Scope of work)	01 Boiler		

10.	a. Replacement / Repairing of expansion joints (As per Scope of work)	30 Meter		
	b. Repair and Replacement of fabric cloth. (As per Scope of work)	25 Meter		
11	Cleaning inspection and repair of Tubular Air Pre-heater blocks (As per Scope of work)	03 Nos.		
12	Painting of Boiler Structures. (As per Scope of work)	6000 Sq.M		

Signature with seal of tenderer

Self Declaration

I.....son/daughter of Shri Aged..... years

resident ofPS.....District.....State.....do hereby declare that:

1. I am the authorized representative and signatory of M/s..... (name of the firm/company).

2. All document(s) submitted/ information provided by M/s..... alongwith the Bid Document submitted against Tender No..... dated for..... (Name of work) has/have been submitted under my knowledge and are authentic , genuine and true. No part of the document(s) / information is false, forged or fabricated.

3. The above declaration in respect of genuineness of the documents/ information has been made having full knowledge of provisions of bidding conditions which entitle the Owner/BPSCL to initiate action in the event of such declaration turning out to be a false.

4. I undertake to produce all documents in original for verification as and when asked for the same by BPSCL.

(Name & Signature of Authorized person):.....

Designation:.....

ANNEXURE - VII

CHECKLIST TO BE FILLED BY BIDDER EXCEPT REMARKS:- All documents which are required for fulfillment of the qualifying requirement/ Eligibility criteria are to be submitted along with tender in serial order (clearly mention page no.) and the tenderer must fill the checklist.

CHECKLIST OF DOCUMENT SUBMITTED BY TENDERER

Sl. No.	Document	Page No.	Remarks by BPSCL
1.	Work Order		
2.	Completion Certificate		
3.	Partnership/ Proprietor		
4.	EPF		
5.	ESIC		
6.	Latest ITR		
7.	* GSTIN		
8.	Turnover/ PL Sheet		
*If the agency is not under the preview of GST then please write Not applicable (N.A.).			
Total numbers of pages in Techno-commercial Bid			

Signature of tenderer with seal

(To be submitted on bidder's Letter Head)

Format for Acceptance of General Terms & Conditions, Commercial Terms and all other Terms of the Reverse Auction

We _____ (Contractor Name) having

PAN _____ & registered office at _____ (Address)

agree to all the Commercial, General & other Terms & Conditions listed in the

NIT No. _____ dated _____

for the work of _____

(Name of work) through Reverse Auction.

We confirm that we are in a position to do the job as per the scope of work given in NIT/RFQ. We agree to participate in the Reverse Auction and abide by the rules.

We nominate an executive, whose details are given below, to put the bids on our behalf.

The details of the person authorized to bid on our behalf is as follows.

Name & Designation :

E-mail ID :

Contact phone nos. :

Address :

(Signature & Seal)

Place :

Date :

Format for submitting last quoted prices*(To be submitted on Company Letter Head of the Bidder)***(To be sent within 30 mins of conclusion of the Reverse Auction)**

To,

mjunction services limited
 1st Floor, Tata Centre
 43, Jawaharlal Nehru Road
 Kolkata – 700 071

Fax: 033 – 2288 3279**Ref: Reverse Auction forfor Bokaro Power Supply Co. (P) Ltd. held on**

Reference above, we hereby confirm our Market wise last quoted prices in the Reverse Auction held on forfor Bokaro Power Supply Co. (P) Ltd., Bokaro Steel City.

Market No.	Last Quoted Percentage
	<i>To be submitted by the L-1 Bidder only after finalization of RA</i>

We also confirm that we will submit item wise price break-up, within two working days from the date of Reverse Auction.

Signature :

Name :

Designation :

Date :

Format for Bid Securing Declaration (In lieu of EMD)

Date: _____

Tender Enquiry no.: _____

To
The GM In-charge (Material Management)
Bokaro Power Supply Company (P) Ltd.
Hall No. – M 01
Old Administrative Building
ISPAT Bhawan, Bokaro Steel City

I/We*, the undersigned, declare that:

I/We* understand that, according to your conditions, bids must be supported by a Bid-Securing Declaration in lieu of Earnest Money Deposit.

I/We* understand that if I/We* withdraw or modify my / our* Bids during the period of validity, or if I am /We are* awarded the Contract and I/We* fail to honour my /our* offer by way of either withdrawing my / our* bid within the bid validity period without assigning any valid reason for the same or refusing to submit Performance Security / Performance Guarantee as per relevant Clause of the tender enquiry or refusing to accept the price quoted by me / us* in Online Price Bid or Reverse Auction within the period of validity of the same or refusing to sign the Contract Agreement, I/We* will be suspended for a period of one year from being eligible to submit Bids for all future Contracts.

I/We* understand that this Bid Securing Declaration shall cease to be valid if I am / We are* not the successful Bidder and I am / We are* not awarded the Order against the tender enquiry.

Signed _____ in the capacity of _____

Name: _____

Duly authorized to sign the Bid for and on behalf of: _____

Dated on _____ day of _____, _____

Corporate Seal (where applicable)

[Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the Bid.]

* *Please delete as appropriate*

ENVIRONMENT, HEALTH AND SAFETY**EHS (Environment, Health and Safety) Clause for contracts where overall site is under BPSCL control****Your Responsibilities**

You shall during the entire term of contract undertake to perform the following obligations relating to environment, health and safety:-

1. Ensure that your workforce is not exposed to asbestos or asbestos containing atmosphere.
2. Take suitable control measures to ensure that the workers are protected from dust emission.
3. Monitor and ensure that the working area is free from any toxic gas, vapour and fume. Take adequate measures to reduce level of concentration below permissible limit. Exposure to any particular toxic gas, vapour or fume shall not exceed the maximum permissible limit prescribed in local regulation for any particular period of time. Ensure adequate ventilation and no immediate danger to life and health of personnel working at site.
4. Ensure that there is no flammable atmosphere and uncontrolled fire hazard in and around the work place. In case it is required to work in flammable atmosphere, implement safe working procedure and suitable control measures in order to work safely.
5. Ensure that the workers are protected from excessive noise and heat. Take adequate measures to reduce noise/heat level below the permissible limit.
6. Ensure safe access and egress in and around work place. Ensure proper maintenance of platforms, staircases, ramps etc. special care and all safety measures should be taken while working at height. Roof work and access to roofs must not be undertaken without prior permit.
7. All Personal Protection Equipments supplied by you should be of internationally recognized standards. All tools and tackles bought by you for use during the contract period should have proper and valid certification by competent authority.
8. All lifting equipment, tools and accessories provided by BPSCL should be maintained and returned by you in sound condition after the completion of contract period.
9. Ensure that the illumination in and around workplace and access areas are maintained properly. Make sure to switch off the light, fan and air conditioners after use.
10. You must ensure that all machinery and equipment are provided with earth fault circuit breakers at all times when using electrical leads. Use of electrical tape for temporary repair is prohibited.
11. Guards and covers for equipment/machineries are to be provided where ever necessary.
12. Gas cylinders shall be securely stored, transported, identified and used in line with legislation and EHS requirements.
13. Fire extinguishers and other fire fighting equipments provided in different locations should never be misused.
14. You must ensure optimum use of water with minimum wastage.
15. You shall ensure that the work area is kept clean, tidy, & free from debris. You are also fully responsible for protection of ground and underground from pollution.
16. Identify and highlight potential hazards / risks existing.
17. Ensure suitable corrective actions are implemented for identified issues.
18. Provide adequate emergency and first-aid facilities and it should be available in all shifts.
19. All your workers should be trained and communicated about the onsite emergency and evacuation plan.
20. All equipments and plant should be maintained in safe condition.
21. You and your personnel admitted to site must conduct themselves in an orderly and safe manner and conform at all times to the EHS Requirements. Fighting, engaging in horseplay, being under the influence of or possessing alcohol or drugs, gambling, soliciting, stealing, immoral or otherwise undesirable conduct is not permitted and shall not be tolerated. Upon knowledge of such conduct, BPSCL shall exclude the concerned person from the site and take all other appropriate measures as deemed necessary. BPSCL reserves the right to perform random drug and alcohol tests.
22. You shall immediately notify BPSCL of any environmental incident, injury, illness, near-miss, unsafe condition or practice and any loss or damage to property, including incidents related to the your personnel. An investigation report assessing the root cause, corrective action, and preventative action shall be submitted by to BPSCL within 24-hours of the incident's occurrence.