FORM'C'

RASHTRIYA ISPAT NIGAM LIMITED
VISAKHAPATNAM STEEL PLANT
WORKS CONTRACTS DEPARTMENT
VISAKHAPATNAM-530031
PHONE NO: (MAX)3691, TELEFAX NO:0891-2518763

NAME OF THE WORK:

MECHANICAL MAINTENANCE OF TG-5 AND TG-4 AND THEIR AUXILIARIES

TENDER NO: 75222-0

PERIOD OF CONTRACT	**:**	**12 (TWELVE) Months**
DEFECT LIABILITY PERIOD	**:**	**03 (THREE) Months**
ENGINEER	**:**	**DGM (M)-TPP**

ISSUED TO SRI/ M/s._____

Note: Tenderer has to fill the data wherever and whatever required in the tender schedule without fail and sign all the pages

No of pages of BOQ alone : 03 (THREE) pages only

Total No. of pages : 33 (THIRTY THREE) pages only

(FOR OFFICE USE ONLY)

1. E.M.D. PARTICULARS	**:**	
2. Sl. No.	**:**	**OUT OF TENDERS**
3. COVERING LETTER	**:**	**NO. OF PAGES:**
4. REBATE OFFERED	**:**	
5. RATE WRITTEN IN WORDS	**:**	
6. VALIDITY OF TENDER	**:**	**4 MONTHS FROM THE DATE OF OPENING**

SIGNATURE OF CONTRACT DEPT. REPRESENTATIVE

SIGNATURE OF FINANCE DEPARTMENT REPRESENTATIVE

RINL Vigilance →TOLL FREE NUMBER : 1800 425 8878

Signature of the Tenderer

RASHTRIYA ISPAT NIGAM LIMITED
VISAKHAPATNAM STEEL PLANT
WORKS CONTRACTS DEPT., VISAKHAPATNAM -530031 (A.P.)
TELEFAX: 0891-2518763 TEL NO: 0891-2758705, 2518763
OPEN TENDER NOTICE NO: VSP/WC/TPP/75222-0/OT/2015 DATED 13-04-2015

1.0 Sealed tenders along with Earnest Money Deposit (EMD) are invited from experienced contractors for the following work:

Tender No:	*Name of the work*
75222-0	**MECHANICAL MAINTENANCE OF TG-5 AND TG-4 AND THEIR AUXILIARIES**

Note : Tenderers should have successfully carried out regular maintenance/capital repair/erection & commissioning of steam turbines/boiler feed pumps/CEPs of steam turbines of Turbo Generators or Turbo Blowers" shall only be considered

Tender Number	Cost of Tender Document (Non-refundable)		*Eligibility/ experience requirements*		Earnest Money Deposit (₹)
	By hand	By download	Value of single similar work executed (₹ in Lakhs)	Annual Turn over (₹ In Lakhs)	
75222-0	**800/-**	**800/-**	**11.61**	**06.96**	**17,500/-**

2.0 Cost of Tender document(s) shall be paid in the form of Demand Draft/Pay Order/Banker's Cheque, obtained from any Nationalized or Scheduled Bank in India, drawing in favour of **RIN Ltd**., payable at **Visakhapatnam and shall be valid for a minimum period of one month from the date of opening of tender i.e., Envelope-1 [Pre-qualification documents]. THE COST OF TENDER DOCUMENT(S) RECEIVED ALONGWITH TENDER DOCUMENT WILL NOT BE REFUNDED UNDER ANY CIRCUMSTANCES UPON RECEIPT OF TENDER.**

3.0 The value of **single similar work executed** shall be during the last **07(Seven)** years ending last day of month previous to Tender Notice date i.e: **31.03.2015** and Turnover shall be the average Annual Financial Turnover during the **last three years** ending 31st March of the previous financial year i.e.**31.03.2015**. The tender document shall be accompanied with copies of **(a) Work Order, Bill of Quantities, Work Completion Certificate indicating the total value of the work done inclusive of all deviations and escalations against the subject work and including all taxes & duties, but excluding Service Tax. In case of work executed outside VSP, and where the total amount includes Service Tax, tenderers shall make efforts to get the value of Service Tax indicated separately (b) for Turn Over Audited balance sheets certified by Practicing Chartered Accountant in case the annual Turn-over is more than ₹40.00 Lakhs (or) in case of Turn-Over being less than ₹40.00 lakhs either Turn-over certificate in the prescribed format of VSP duly signed by a practicing Chartered Accountant/Cost Accountant or T.D.S. certificate(s) comprising of the Gross bill values issued by the Deductor(s) for the work done. (c) Copy of registration letter issued by V.S.P. in case of registered agencies and in case of non-registered agencies, either a copy of Notarized sole proprietorship OR a copy of partnership deed OR a copy of Memorandum of Association & Articles of Association, along with certificate of registration – whichever is applicable. VSP reserves the right to reject the offer in case the above documents are not enclosed along with the offer**. The authorized representative of the tenderer shall sign on all the copies of the documents submitted along with the tender document.

NOTE :

1) TENDERERS SHALL SUBMIT PF REGISTRATION CERTIFICATE IF AVAILABLE, IF NOT AVAILABLE SUCCESSFUL TENDERER SHALL SUBMIT PF REGISTRATION CERTIFICATE BEFORE COMMENCEMENT OF THE CONTRACT.
2) THE SUCCESSFUL TENDERER SHALL PRODUCE REGISTRATION CERTIFICATE UNDER APVAT ACT, WHEREVER APPLICABLE, BEFORE SIGNING THE WORK ORDER / LOA AND SUBMIT A COPY OF THE SAME.

4.0 The tenderers are requested to note that :

4.1 The offer shall be made in **02(two) envelopes. First envelope** (to be super scribed as Envelope-1 with name of the work, tender no.) should contain the cost of the tender document in case the tender is down loaded from the web site (Tender can be purchased from the office of Dy GM(WC) I/c by paying tender cost in the form of DD/PO/BC as cited at para-2 above in which case tender cost need not be enclosed while submitting the tender), Earnest Money Deposit(EMD) separately in the form of DD/PO/BC etc (refer to instruction to tenderer) and pre-qualification documents(Criteria eligibility/experience and other documents etc. as cited at para(03) above) duly signed / attested by the authorized representative of the company as per para-1 read with para-3 above. **Second envelope** (to be

super scribed as Envelope-2 with name of the work, tender no.) should contain price bid in its prescribed format along with the tender document.

4.2 The first cover shall be opened initially and only on satisfying the eligibility criteria, adequacy of cost of tender document (in case of downloaded tender) and EMD etc., placed in it, the second envelope containing the price bid shall be opened. The date and time of opening of the price bid along with names of successful tenderers in pre-qualification will be subsequently displayed in the notice board of Works Contracts only and no individual communication to tenderers will be made.

4.3. The documents submitted in the first envelope by the tenderers in respect of pre-qualification criteria are final and no further correspondence / clarifications / submissions in this regard shall be entertained.

4.4 Scope of work, Bill of Quantities (BOQ), Terms & Conditions given in the tender documents (placed in the website) is final. On verification, at any time, whether the tenderer is successful or not, if any of the documents submitted by the tenderer including the documents downloaded from our website / issued are found tampered/altered/ incomplete, they are liable for actions like rejection of the tender, cancellation & termination of the contract, debarring etc., as per the rules of the company.

4.5 It will be presumed that the tenderers have gone through the General Conditions, Special Conditions & Instructions to tenderer etc., of the contract available in the website which shall be binding on him/ them.

4.6 The tenderer shall download the "TENDER SCHEDULE" available on the website in totality and submit the same duly signed on each page. **Any time prior to the deadline for submission of bids, Works Contracts department may, for any reason, modify the tender terms and conditions by way of an amendment, such amendment will be notified on RINL's website at regular intervals.**

4.7 Tenders submitted against the NIT / Tender shall not be returned in case the tender opening date is extended/postponed. Tenderers desirous to modify their offer / terms may submit their revised / supplementary offer(s) within the extended TOD, by clearly stating the extent of updation done to their original offer and the order of prevalence of revised offer vis-à-vis original offer. The employer reserves the right to open the original offer along with revised offer(s)

5.0. The tender documents and other details can be downloaded from our web site: **www.vizagsteel.com** and the same are to be submitted to the Dy General Manager (Works Contracts) I/c, Visakhapatnam Steel Plant duly signed on each page by the tenderer **on or before 03.00PM on 05.05.2015.**

6.0. Non-transferable tender document can also be obtained from the office of Dy General Manager (Works Contracts) I/c, VSP on written request on bidder's letter head on payment of tender cost in the form of DD/BC during working hours 10 AM to 4.30 PM **on or before 04.30PM on 04.05.2015.**

7.0. Tenders will be received in the office of Dy General Manager (Works Contracts) I/c, **up to 03.00 PM on 05.05.2015 and Envelope-1 will be opened immediately there after.**

8.0 If it comes to the notice of VSP at any stage right from request for registration /tender document that any of the certificates /documents submitted by applicant for registration or **by bidders are found to be false/ fake/doctored, the party will be debarred from participation in all VSP tenders for a period of 05(FIVE) years including termination of contract, if awarded. E.M.D/Security Deposit etc., if any will be forfeited. The contracting agency in such cases shall make good to VSP any loss or damage resulting from such termination. Contracts in operation any where in VSP will also be terminated with attendant fall outs like forfeiture of E.M.D./Security Deposit , if any, and recovery of risk and cost charges etc., Decision of V.S.P Management will be final and binding**

9.0 The date of opening of the pre-qualification cover (envelope-1) shall be the date of tender opening in respect of both the single bid and two-bid (techno-commercial and price-bid).

10.0 Successful tenderer should be in a position to produce, after opening of the price bids, the Original Certificates in support of the attested copies of relevant documents submitted along with tender document. Failure to produce the original certificates at this stage in support of the attested copies of P.F. Regn./ITCC/Electrical License/experience /qualification/any other documents etc. submitted earlier would result in **disqualification and forfeiture of EMD and also liable for debarring from participation in VSP tenders**

11.0 Tender documents will be issued to tenderers based on their request and on payment of tender cost or same can be downloaded from our web site by submitting the cost of tender along with their offer. However, RINL will not be responsible for any delay/loss/any website related problems in downloading the tender documents etc.. RINL reserve the right to (a) Issue or Refuse tender documents without assigning any reason. (b) Split and award the work to more than one agency, (c) reject any or all the tenders or to accept any tender wholly or in part or drop the proposal of receiving tenders at any time without assigning any reason there of and without being liable to refund the cost of tender documents thereupon.

For Dy General Manager (Works Contracts) I/c

RINL Vigilance →TOLL FREE NUMBER : 1800 425 8878

FORM – A

Ref. Tender No. **75222-0**

Name of the Work : **MECHANICAL MAINTENANCE OF TG-5 AND TG-4 AND THEIR AUXILIARIES**

To
Dy General Manager I/c
Works Contracts Department
Visakhapatnam Steel Plant
Visakhapatnam-530 031.

Sirs,

With reference to the Notice Inviting Tender, I/We have gone through the tender documents issued to us. I/We have also gone through the General Conditions of Contract of VSP available in VSP web site and noted the contents therein. I/We hereby confirm that I/We shall abide by Terms and Conditions of General Conditions of the Contract including Form of Tender, Invitation to Tender, Articles of Agreement etc. I/We hereby declare that, I/We have visited, inspected and examined the site and its surroundings and satisfied ourselves before submitting this tender, obtained information about the nature of work, facilities that may be required and obtained necessary information about Working Conditions, risk contingencies etc., which may influence this tender. We hereby offer to execute & maintain the work during the defect liability period in conformity with the tender conditions at the respective rates quoted by us.

I/We have deposited the EMD, which amount is not to bear any interest and I/We do hereby agree that this sum shall be forfeited by me/us if I/We revoke/withdraw/cancel my/our tender or if I/We vary any terms in our tender during the validity period of the tender without your written consent and/or if in the event of Visakhapatnam Steel Plant accepting my/our tender and I/We fail to deposit the required security money, execute the Agreement and/start the work within reasonable time (to be determined by the Engineer) after written acceptance of my/our Tender.

- Status of the firm (mark)
- Proprietary /Partnership/others (Specify)

* Authority to Sign:
a) Proprietor
b) Managing Partner
c) Power of attorney holder
Name of Partners:
1)
2)
3)

Following Details are to be furnished by the tenderer compulsorily (neat&legible) while submitting the tender schedule	
Income Tax PAN No.	
Status/Reason for not having PAN No.	
OFFICIAL ADDRESS Phone No: Cell No : Fax No.: e-mail address:	

Yours faithfully,

(Signature of Contractor)
Name:……

RINL Vigilance →TOLL FREE NUMBER : 1800 425 8878

INSTRUCTIONS TO TENDERERS

1.a) Tenders shall be submitted in the office of the Dy General Manager (Works Contracts) I/c, Visakhapatnam Steel Plant, Visakhapatnam – 530 031.

b) Tenders shall be submitted in the prescribed form issued by VSP. The Tender documents issued are not transferable. Tender documents issued/downloaded shall be submitted wholly without detaching any part.

c) The Tenderer shall agree to VSP's terms and conditions, specifications/scope of work, etc., and quote their **"Total Amount only"** accordingly.

d) Tender shall be for the entire scope of work mentioned in the tender documents.

e) Tenderer **"Shall quote only the Total Amount in figures and in words".** Over writing is not permitted and corrections are to be essentially initialed. Amount quoted in words shall govern in case of variance between figures and words.

f) The " **Total Amount quoted in figures and words shall be tallied"** before submission of the tender and all mistakes corrected and initialed. Quotation shall preferably be type written or written in neat and legible handwriting. All the pages of tender documents shall be signed by the tenderer.

g) **Respective tenderers participating in the tenders due for opening on the scheduled day, can witness the opening of tenders/price bid on production of valid identity card/gate pass, or alternately, shall give a duly signed authorization to their designated representatives who are nominated if they wish to witness the tender/price bid opening. However, if the tenderer/designated representative participates for other than his tender his gate pass will be cancelled for a period of 01 (ONE) year.**

h) If by any reason the tender opening is postponed to any other date, the details will be displayed in the notice board of Works Contract Department. Tenderers shall see the notice board regularly and keep themselves informed in this matter.

i) Before quoting, the tenderer shall necessarily contact the "Engineer" and fully understand the job, scope of work, unit of measurement, mode of measurement, scope of supply of materials by VSP if any, working conditions, shutdown arrangements, Labour deployment requirements, risk contingencies and such other factors which may affect their tender.

j) General Conditions of Contract of VSP for Works Contracts are available in the Office of DGM (Works Contracts) I/c and also in VSP's web site for reference. The tenderers shall study and understand all the relevant provisions before quoting.

k) Tenders shall be kept open for acceptance for a period 4 (Four) MONTHS from the date of opening of tender i.e.., Envelope-1.

l) After opening of tender, the tenderers may be called for negotiations and the details like date, time etc. will be displayed on the notice board of Works Contract Department. The tenderers shall see the notice board regularly and keep themselves informed in this matter and promptly attend negotiations without fail.

m) Purchase Preference will be given to PSU's where applicable as per DPE guidelines.

n) The local Small Scale Industries as approved by VSP and registered with Works Contracts Department of Visakhapatnam Steel Plant in the category of Industrial Paint Manufactures for supply and application of industrial Paints to various structurals, equipment pipelines etc., are eligible for purchase preference as per the policy of VSP in force from time to time. The local small-scale industries, those who are technically and commercially acceptable shall be considered for extension of Purchase Preference, if the offer is within 15% above L-1 price and upon their matching with L-1 price.

o) The date of opening of pre-qualification envelope-1 shall be the date of tender opening in respect of both the SINGLE BID AND TWO- BID(Techno-commercial and Price bid) tenders.

p) Corrections / amendments / replacement to / of the deficient documents / financial instruments for Earnest Money Deposit (EMD) & Cost of Tender Document (CTD) shall not be sought in the following cases where

(a) There is evidence of tampering / unauthorized correction

(b) The value of financial instrument (s) / document (s) is falling short of the value stipulated in the NIT

(c) The validity of BG (s) as on initial tender opening date (TOD) is falling short of minimum validity period stipulated in the tenderer

(d) Discrepancy exists in the name of Payee / Beneficiary

(e) The bidder fails to submit CTD and / or EMD in case of submission of a single instrument / document towards both CTD and EMD.

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2) EARNEST MONEY DEPOSIT (EMD)

a) **In case of Earnest Money Deposit being less than or equal to Rs.5 Lakhs,** Earnest Money Deposit shall be in the form of Demand Draft / Pay Order / Banker's Cheque obtained from any Nationalized or scheduled commercial bank in India, drawn in favour of Rashtriya Ispat Nigam Ltd., Visakhapatnam Steel Plant, payable at Visakhapatnam and shall be valid for a minimum period of one month from the Envelope-1 (Pre-qualification documents) opening date. **No other mode of payment will be accepted. However, in case EMD exceeds Rs.5 Lakhs, tenderers have the option to submit the same in the form of Bank Guarantee (In the format as enclosed to the GCC) from any Scheduled Commercial Bank, encashable at Visakhaptnam. Bank Guarantees shall be valid for a minimum period of 04(Four) months from the date of opening of Envelope-1 (Pre-qualification documents). The above shall supercede the instructions regarding "form of EMD" elsewhere in the tender document.**
The above shall supercede the instructions regarding "Form of EMD" elsewhere in the tender document.

b) ***Public Sector Enterprises of State / Central Government Undertakings are exempted from submission of Earnest Money Deposit (EMD) provided they submit a letter requesting for exemption from submission of EMD along with their offer.***

c) ***"Micro & Small Enterprises (MSEs) listed with NSIC only are exempted from submission of Cost of Tender Documents (CTD), Earnest Money Deposit (EMD), and Security Deposit (SD), irrespective of whether the service is to be carried out within or outside their premises, subject to submission of the following documents along with their tender: -***

   a. ***Proof of enlistment with NSIC and with particulars of relevant trade/item.***
   b. ***Registration details of the particular trade/item for which this tender is relevant, by way of submission of 'Ácknowledgement of Enterpreneur Memorandum(EM) Part-II' from the Industries Department, along with their tender. The Micro and Small Enterprises not registered for the particular trade/item for which this tender is relevant, would not be eligible for exemption. SSI Registration Certificate is not valid and no concession or benefits shall be extended if EM Part-II is not submitted, and,***
   c. ***As regards Security Deposit (SD) exemption, the MSEs shall however be required to submit a "Performance Guarantee Bond" in the prescribed proforma, equivalent to the value of Security Deposit. It may be noted that waiver of SD is permitted only up to the monetary limit for which the unit is registered.***

d) ***EMDs of unsuccessful tenderers will be refunded after reasonable time without interest.***

3) MODE OF SUBMISSION OF TENDER

a) Tender shall be submitted in two separate sealed covers. In case of single bid tender, the first cover shall contain the D.D. / Pay Order / Banker's Cheque for Earnest Money Deposit / Cost of Tender Document / EMD exemption documents for PSUs & **MSE units registered with NSIC**, other pre-qualification documents etc. and the second cover shall contain the tender.

b) In case of two bid system, the first cover shall contain the techno-commercial bid part of tender, along with the other bank instruments / documents indicated in para 3(a) above, and the second cover shall contain only the price bid part of tender.

c) The two sealed covers as mentioned above shall be stapled / tied together and submitted. The first cover will be opened first and only if the submitted documents / instruments are found to be as per NIT requirement, will the second cover containing the price bid be opened.

d) Tenders not satisfying the requirements as per NIT will not be opened.

SPECIAL CONDITIONS OF CONTRACT (SCC)

1. General: The special conditions of the contract (SCC) are complementary to and shall be read in conjunction with General Conditions of Contract (GCC) of VSP for works contracts. Scope of work, Bill of Quantities and other documents form part of the Tender Documents. In case of any conflict of meaning between SCC & GCC, provisions of SCC shall over ride the Provisions of GCC.
2. Visakhapatnam Steel Plant reserves the right to accept or reject the lowest or any other tender without assigning any reason and the work may be awarded to one of the Tenderers or to more than one tenderer.
3. The contract shall be treated as having been entered into from the date of issue of the letter of intent/work order to the successful tenderer, unless otherwise specified.
4. WATER, POWER AND COMPRESSED AIR: Unless otherwise specified to the contrary in the tender schedule, the contractor is entitled to use in the work such supplies of water, power and compressed air (Basing on availability) from VSP's sources from approved tapping points, free of cost. The contractor shall make his own arrangement for drawing the same to the work spot.
5. **The successful tenderer shall produce Registration Certificate under APVAT Act, wherever applicable, before signing the Work Order / Letter of Acceptance and submit a copy of the same.**

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Signature of the Tenderer

6. Immediately on receipt of work order, the successful tenderer shall obtain and submit the following documents to the Engineer with a copy to ZPE/Manager (Pers)/CLC before start of work.
   a(i) **ESI registration certificate** with the contractor's Code no. covering all the workmen under ESI Scheme, which shall be effective from the date of start of contract and cover for the entire period of contract including extended period/defect liability period, if any.
   a(ii) **Insurance policy for payment of exgratia amount of Rs.5,00,000/-** (Rupees Five lakhs only) per head in case of fatal accidents while on duty, to the contract labour engaged by him in addition to the coverage under ESI Scheme / Workmen Compensation Insurance Policy whichever is applicable. As and when a fatal accident takes place while on duty along with the benefits under the ESI Scheme / Workmen Compensation, whichever is applicable, the contractor is required to pay the ex-gratia amount within 30 (Thirty) days from the date of accident to the legal heir of the deceased. **In case of any delay in paying the ex-gratia amount as above, the Employer has the right to pay such amount directly to the legal heir of the deceased and recover the same from the contractor's running / future bills.** This insurance policy is to be taken by the contractor over and above the provisions specified under Clause No. 6.13 (Third Party) and 6.14 (ESI Act) of the General Conditions of Contract.
   a(iii) **Copy of the policy for third party insurance** as stipulated in Clause 6.13 of the GCC.
   b) Labour License obtained from Assistant Labour Commissioner (Central), Visakhapatnam.
   c) PF Registration Certificate issued by PF Authorities
   d) **Safety clearance** from Safety Engineering Department of VSP.
7. The contractor shall submit wage records, work commencement/completion certificate etc. and obtain necessary clearance from Contract Labour Cell of VSP for bills clearance.
8. The contractor shall ensure strict compliance with provisions of the Employee's Provident Fund Act, 1952 and the scheme framed there under in so far as they are applicable to their establishment and agencies engaged by them. The contractor is also required to indemnify the employer against any loss or claim or penalties or damages whatsoever resulting out of non- compliance on the part of the contractor with the provisions of aforesaid act and the schemes framed there under. A copy of the provident fund membership certificate/PF CODE number shall be submitted by the contractor.
9. The contractor shall follow the provisions of Indian Factories Act and all rules made there under from time to time as applicable and shall indemnify the employer against all claims of compensations under the provisions of the act in respect of workmen employed by the contractor in carrying out the work against all costs, expenses and penalties that may be incurred by the employer in connection therewith.
10. a) Total amount quoted shall be inclusive of all taxes, levies, duties, royalties, overheads and the like but excluding service tax prevailing as on the date of submission of bids.
    b) During the operation of the contract if any new taxes/duties/levies etc are imposed or rates undergo changes, as notified by the Government and become applicable to the subject works, the same shall be reimbursed by VSP on production of documentary evidence in respect of the payment of the same. Similarly benefits accruing to agency on account of withdrawal/reduction in any existing taxes and duties shall be passed on to VSP.
    C) The benefit offered by the agency (other than Service Tax) will be deducted from each bill on the offered percentage basis. Amount so recovered shall be released, limiting to the percentage of benefit offered on the quoted price, only on receipt of credit by VSP.
    d) The prices are exclusive of Service Tax. RINL-VSP will pay Service Tax as applicable on submission of Invoices in accordance with Rule 4A (1) of Service Tax Rules 1994.
    The contractor will be paid Service Tax by RINL-VSP along with monthly service charge bills for further deposit with Central Excise Authorities. The contract will, in turn, submit the documentary evidence in support of payment of Service Tax of each month along with subsequent month RA Bills.
11. **ADVANCE:** No advance of any sort will be given by VSP.
12. **PAYMENT TERMS:** Payment will be made monthly on recommendations of the Engineer basing on the quantities executed, at accepted rates.
13. **MEASUREMENTS:** The contractor shall take measurements jointly with the Engineer or his representative and keep joint records for the same. Bills shall be prepared and submitted by the contractor basing on agreed measurements.
14. **INITIAL SECURITY DEPOSIT (ISD):** Initial Security Deposit for the work shall be @ 2% of contract price. Earnest Money Deposited by the successful tenderer shall be adjusted against ISD, and the difference between ISD and EMD shall be deposited in the manner mentioned in the work order/letter of intent.

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15. **RETENTION MONEY:** Retention Money for contracts up to a value of Rs. 100 lakhs, at the rate of 7.5**% of the bills for works with defective liability period** *not NIL* **and at the rate of** *5.0% for works with defective liability period "NIL"* will be deducted from each bill until this amount together with the Initial Security Deposit reach the limit of retention which is 7.5% or 5.0% as the case may be for the value of work. The Retention Money shall be released after the satisfactory completion of defect liability period after liquidating the defects. For contracts of value above Rs.100 Lakhs, the limit of retention money shall be Rs.7.5 lakhs plus 5% of the value exceeding Rs.100 lakhs.

16. **Security Deposit : The Public Sector Enterprises or State/Central Government Undertakings/ Micro & Small Enterprises (MSEs) listed with NSIC will not be required to submit Security Deposit, but however they shall submit "Performance Guarantee Bond" in lieu of Security Deposit in the prescribed proforma equivalent to the value of Security Deposit covering the period of contract + defect liability period + 6 months (Claim period).**

17. Recovery of income tax at source will be made from contractor's bill and deposited with Income Tax Department as per rules. Recovery of sales tax applicable shall be made from the contractor's bills.

18 . **SAFETY:**

a) The contractor and his workers must strictly take all safety precautions and shall supply to his workers dependable safety appliances like hand gloves, safety boots, safety belt, safety helmets, duster cloth, dust mask/nostril filter etc. In addition to this, contractor shall also provide additional safety appliances as per requirement and follow safe working practices like using fully insulated electrode holders etc. He shall also ensure that his workmen intelligently use only dependable safety appliances supplied to them.

b) The contractor shall take adequate safety precaution to prevent accidents at site. The contractor shall also ensure that his employees observe the statutory safety rules and regulations and also those laid down by the employer from time to time and promptly submit report of accident and state the measures taken by him to prevent their recurrence and also keep the employer indemnified of all claims arising out of such accidents.

c) No Workmen shall be engaged on the work without proper safety induction and without using required PPE. Use of safety helmet and shoe is must excepting in painting works where shoe will not be used.

d) All the safety appliances required for safe working as decided by SED/Contract operating department shall be provided by the contractor to his workmen.

e) Clearance to start the job will be obtained by the contractor in form 'A&B' before start of work. The forms may be obtained from the dept. concerned.

f) Works at height cannot be started without clearance from Zonal Safety Officer. The workers engaged for work at height shall possess height pass from SED. The names of workmen working at height or in hazardous areas will be written on the body of form "B".

g) Contravention of any safety regulation of VSP in vogue from time to time will result into work stoppage, levying penalties and ultimately in contract termination. The list of safety violations category wise are as follows:

Cagetory	Safety violations	Fine
I	1. Occasional violation of not wearing crash helmet	First offence: Rs.100/- Second or subsequent offences: Rs.300/-
	2. Driver of two wheeler carrying more than one pinion rider	First offence: Rs.100/- Second or subsequent offences: Rs.300/-
	3. Wrong parking of vehicle	First offence: Rs.100/- Second or subsequent offences: Rs.300/-
II	<u>MINOR VIOLATIONS</u> 1. Working at height without height pass. 2. Unauthorized entry at hazardous location. 3. Engaging workers without safety training	

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 Signature of the Tenderer

	4. Proper ladder/steps not provided for working. 5. Failure to provide proper shuttering at excavation works. 6. Power connection taken from board without proper board plug. 7. Fitness certificate of cranes/hydra/heavy vehicles not available. 8. Crane rope conditions not OK. 9. Not wearing safety helmet / safety shoe at site. 10. Safety goggles/Hand gloves not used. 11. Gas cutting without goggle. 12. Rolling/lifting of cylinder/dragging on the ground (without cage) 13. Welding with non standard holder. 14. Welding machine earthing not done (double body earthing) 15. Gas hose pipe clamping done by wires. 16. LPG Cylinder date expire / over. 17. Loading/unloading of cylinder – cushion not given. 18. Condition of hose pipe not good. 19. Working with leaking cylinder. 20. Using non power cable instead of welding cable. 21. Working without work permit / shut down. 22. Not putting red flags / stoppers. 23. Dismantling of structure without authorized plan. 24. Unauthorized Oxygen/Nitrogen tapping. 25. Not having proper gate passes / other area passes. 26. Use of damaged slings / tools / ropes. 27. Use of hand grinders / mixer machines without guard. 28. Not reporting of accident. 29. Taking shelter behind electrical panel. 30. Driving of heavy vehicles on the main road during restricted hour. 31. Truck side panel / broken not OK. 32. Dropping / Spillage of material on the road. 33. No number plate on vehicle. 34. No indicator light / brake light on vehicles. 35. Driving dangerously. 36. Overloading of the vehicles beyond CC weight. 37. Racing and trials of speed, overtaking heavy vehicles. 38. Moving vehicles in unauthorized restricted routes. 39. Talking with cell phone while driving. 40. Truck carrying powdery material without tarpaulin. 41. Vehicles without red flags / red lights, side guards & tonnage. 42. Stock protruding out of the truck body.	First violation: Rs.2500/– Second time violation: Rs.10,000/– Third time repeated violation: Rs.20,000/–
III.	<u>MAJOR VIOLATIONS</u>: 1. Using bamboo or other non standard material for scaffolding. 2. Railing not given at platforms or opening of floor. 3. Scaffolding planks not tied properly. 4. Throwing / dropping of material from height. 5. Proper ladder / approach not given for working at height. 6. Walkway / cross over path not provided. 7. No barricading of excavated pits. 8. No top cover on power distribution board. 9. Sleeping under truck. 10. Absence of Supervisor at height works, confined space jobs	Rs.7,500/– for 1st violation, 2nd and subsequent violations Rs.15,000/–

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	and other hazardous jobs. 11. Welding screen / face shield, welder gloves not used. 12. Driving vehicles without valid driving license. 13. Driving by a drunken person.	
IV.	HIGH RISK VIOLATIONS: 1. Failure to use full body harness with double lanyard. 2. Life line of full body harness not anchored. 3. Floor opening left unguarded in the area of work. 4. Working at roof without daily permit. 5. Working in confined space without confined space work permit. 6. Violation of electrical shut down / PTW. 7. Violation of HOT work permit system.	Rs.15,000/-
V.	1. Serious injuries and permanent disabilities. 2. Fatal accident cases	Rs.1,00,000/- or 2.5% of contract value whichever is less. Rs.2,00,000/- or 10% of contract value whichever is less.

(1) The above penalties related to the accidents mentioned at Category (V) will be imposed on agency in case the reasons to the accidents are attributable to the agency.

(2) Independent of the above, the contractor shall be debarred or deregistered from taking up further contractual work in VSP in case any repeated fatal accident after 3rd incident for the reasons attributable to contractor.

Note: The penalties mentioned above are in addition to those which are applicable as per the Statutory Acts & Rules. In case of any imposed penalty by any statutory authority, the same shall be over and above the contractual clauses).

(3) Without prejudice to the right conferred for stoppage of work for violation of safety rules, the contractor shall be liable for penalty at the rates indicated above depending upon the category of violation.

(4) Operating authority will assess the penalty amount having regard to all the circumstances in particular in nature and gravity of the violation on the advice of Head of the Safety Engineering Department and will issue a show cause notice specifying therein the proposed penalty. Considering the cause shown by the contractor, if any, the operating authority shall pass final orders which shall then be binding on the contractor. The penalty amount shall be recoverable from any bill and / or EMD / Security Deposit of the contractor without any further reference to him.

h) "The contractor shall ensure that the Welders and Gas Cutters wear cotton dress and leather apron. They shall not wear nylon/synthetic dress. This is required to avoid any fire accident. This must be followed strictly".

19. SHUTDOWNS:

A) Necessary shutdowns will be arranged by VSP to the contractor for carrying out the work based on requirement. No claims on account of delayed/prolonged shutdown will be entertained.

B) The works assigned to the contractor by the Engineer from time to time shall be completed within the time schedule fixed by the Engineer in each case, within the approved shut down period.

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20. LABOUR DEPLOYMENT:

A) The contractor shall deploy his labour as per requirement and as instructed by the Engineer. It may be necessary to carryout the work round the clock based on requirement and shutdown provided. The contractor's rate shall cover such eventualities.

B) Only trained, experienced, safety inducted workers acceptable to the Engineer shall be engaged on this work, work shall be executed as per specifications to the satisfaction of the Engineer.

C) As and when need arises in the Annual works from time to time either for extra requirement of work or as a replacement in running contracts or a contract commencing for the first time, the contractor shall ensure that Displaced Persons (DPs) are engaged in unskilled category of workers to the extent of 50% (fifty percent). The contractor shall contract the Engineer-in-charge for this purpose.

D) The Contractor shall engage contract worker(s) who do not have any adverse record with respect to his character in the past. For this purpose, the character and antecedents of the proposed worker(s) whom the Contractor intended to engage, shall be got verified by the Police and report shall be submitted. Till such time the report is submitted, the proposed contract worker(s) will be given only provisional pass and the pass will be cancelled in case any adverse report is reported.

21. SECURITY REGULALTIONS: The contractor shall abide by and also observe all security regulations promulgated from time to time by the employer.

22. STORING/STACKING OF MATERIALS:_Storing/Stacking/Placing of materials shall be only at the places designated by the engineer.

23. The contractor, his supervisors and workmen shall observe entry and exit timings strictly.

24. After completion of work activity, the site has to be cleared of all debris, construction material and the like.

25. The successful tenderer shall start the work immediately after obtaining gate passes and safety induction training and clearance from the Employer.

26. NOTICES: Any notice to be given to the contractor under terms of the contract shall be considered duly served, if the same has been delivered to, left for or posted by registered post to the contractors principal place of business (or in the event of the contractor being a company, its registered office), at the site or to their last known address.

27. DEFAULT BY TENDERERS: The successful tenderer may be debarred at the discretion of the company, from issue of further tender documents, work orders etc., for a specified period to be decided by the employer in case of :

"Undue delay in starting and execution of work awarded, poor performance, backing out from the tender, non accepting work order/LOI during the validity of tender or non observance of safety rules and regulations, misappropriation of company's materials/property, non payment of due wages to labour or such similar defaults".

28. Successful tenderer should be in a position to produce the Original Certificate in support of the attested copies of relevant documents enclosed along with pre-qualification documents or afterwards, after opening of the Price Bids.

29. Failure to produce the original certificates at this stage in support of the attested copies of PF Registration/ITCC/Electrical License/Experience/Qualification any other documents etc., submitted earlier would result in disqualification and forfeiture of EMD and also liable for debarring from participation in VSP tenders.

30. If it comes to the notice of VSP at any stage right from request for registration/tender document that any of the certificates/documents submitted by applicant for registration or by bidders are found to be false/fake/doctored, the party will be debarred from participation in all VSP tenders for a period of 05 (FIVE) YEARS including termination of Contract, if awarded. EMD / Security Deposit etc., if any, will be forfeited. The Contracting Agency in such cases shall make good to VSP any loss or damage resulting from such termination. Contracts in operation any where in VSP will also be terminated with attendant fall outs like forfeiture of E.M.D. / Security Deposit, if any, and recovery of risk and cost charges etc. Decision of V.S.P. Management will be final and binding.

31. Failure to execute the work after LOI/WORK ORDER is given, will make the party liable for debarring for a period of 2 (TWO) YEARS.

32. In case it is found before/after award of work to the person/agency through Limited Tender Enquiry (LTE) that the same person/agency is proprietor/proprietress/partner of two or more separate agencies and quoted for the same work, then punitive action to the extent of debarring up to 02 (Two) years from participating in VSP tenders will be taken.

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33. In case the Tenderers revoke/withdraw/cancel their tender or they vary any terms of their tender during the validity period of the tender without the written consent of Visakhapatnam Steel Plant (VSP) or in the event of VSP accepting their tender and fail to deposit the required security money, execute the Agreement and fail to start the work within reasonable time (to be determined by the Engineer) after written acceptance of their tender – EMD submitted by them will be forfeited by VSP.

34. Contractor shall note that:

i) Time for mobilization after issue of FAX Letter of Intent/detailed Letter of Intent / Work Order shall be;
   a. 03 (Three) days for Capital Repairs
   b. 15 days for Civil Works
   c. 60 days for painting works of Structural Engineering Department
   d. 07 (Seven) days for Annual Mechanical, Electrical and works of technological assistance/cleaning.

ii) Re-starting the work after disruption shall be within 04 (Four) to 06 (Six) hours after the cause of disruption is removed as decided by the HOD.

iii) Notice period for Contract Termination shall be – 03 (Three) hours in the event of breakdowns, 02 (Two) days in Capital Repairs and 10 days in other works.

Failure to adhere to above stipulations may result in Termination of contract at risk & cost and will make the party liable for debarring for a period o 2 (Two) years.

35. Agencies are required to submit Bank Guarantee for the value as decided by the Engineer as a Security while taking out Equipment/Components/materials of VSP to their workshop situated outside the VSP premises for carrying out repairs.

36. In case of revision in RINL / VSP approved wage rate, consequent to the revision in the minimum wages (either in Basic Wage or Living Allowances) as notified by the Regional Labour Commissioner (Central), Hyderabad, Escalation amount to the contract shall be payable as per the following formula:

$$V = \frac{L \times W \times (X - Xo)}{Xo}$$

WHERE:

V= Escalation Payable

L= Labour Content during billing period.

W= Gross value of work done on the basis of Contract Rates for the period for which variation is applicable

X= Revised weighted average of RINL/VSP approved wage rates of Unskilled Worker, Semi-skilled Worker and Skilled Worker based on the minimum wages as notified by the Asst. Labour Commissioner (Central), Hyderabad, for the period under consideration for the contract as per present man-day's of different categories for the billing period.

Xo = Existing (on the basis which tender estimate prepared) Weighted average of RINL/VSP approved wage rates of Unskilled Worker, Semi-skilled Worker and Skilled Worker based on the minimum wages as notified by the Asst. Labour Commissioner (Central), Hyderabad, for that contract as per present man-day's of different categories for the billing period.

Computation of X and Xo:

X= (a*USR + b*SSR + c*SKR)/(a+b+c)

Xo= (a*USRo + b*SSRo + c*SKRo) / (a+b+c)

L= (a*USRo + b*SSRo + c*SKRo)/W

Where

a= man days present by USW during the billing period

b= man days present by SSW during the billing period

c= man days present by SKW during the billing period

USR= Revised RINL/VSP approved wage rate for USW at the time of billing

SSR= Revised RINL/VSP approved wage rate for SSW at the time of billing

SKR= Revised RINL/VSP approved wage rate for SKW at the time of billing

USRo= RINL/VSP approved wage rate for USW based on which the Estimate of work was prepared.

SSRo= RINL/VSP approved wage rate for SSW based on which the Estimate of work was prepared.

SKRo= RINL/VSP approved wage rate for SKW based on which the Estimate of work was prepared.

(The above escalation shall be independent of the award percentage whether positive or negative)

37. PAYMENT OF MINIMUM WAGES: *Wages paid to the workmen by the contractor should not be less than the rates notified by the Regional Labour Commissioner (Central), Hyderabad, from time to time with regard to the minimum wages applicable to the respective categories of workmen* plus the ad-hoc amount at the rate of Rs.11.54ps as per working day per workman per category. Wages with ad-hoc amount *to the workmen should be paid on or before the 7th of the subsequent month. if 7th falls on a holiday or weekly off day, the payment should be made one day prior to that. Payment of PF for the month, both the employer's (in this case contractor) and employee's (in this case workmen employed by the contractor) contributions should be deposited in the bank in the permanent PF code number and challan obtained before the 15th of the subsequent month and forwarded to the Engineer". In case of failure of the contractor to comply with any of the above, the following action will be taken by VSP.*

LAPSE	ACTION BY VSP
1. a) Payment of wages at rates less than those notified under the minimum wages.	a) An amount equivalent to the differential amount between wages to be paid under minimum wages notification of the Govt. applicable for the period less actual wages paid shall be recovered from the bills as certified by the Engineer.
b) Non-payment of ad-hoc amount	b) As amount equivalent to actual payable towards ad-hoc amount to the workmen engaged for relevant period shall be recovered from the bills as certified by the Engineer.
2. Non payment of wages	An amount equivalent to wages payable by the contractor applicable for the relevant period shall be recovered from the bills as certified by the Engineer.
3. Non Payment of PF	Recovery of PF amount and an amount equivalent to maximum penalty leviable by Regional Provident Fund Commissioner for the delayed period under the provisions of EPF & MP Act and Rules for delayed remittance of PF contributions (both the employee's and employer's contribution), shall be recovered from the bills of contractor as certified by Engineer.
4. Delayed Payment of PF	An amount equivalent to maximum penalty leviable by Regional provident Fund Commissioner for the delayed period under the provisions of EPF & MP Act and rules for delayed remittance of PF contributions (both the employee's and employer's contribution), shall be recovered from the bills of the contractor as certified by Engineer.

38. The contract period can be extended at the discretion of V.S.P. up to 04 (Four) months at the existing Rates, Terms and conditions and the Contractor shall be bound to execute the work accordingly and the offer of the Contractor is deemed to include this aspect.

39. The tenderers shall note that in case of quoting above the Estimated Value of V.S.P. the L-1 party shall furnish logical / satisfactory explanation which V.S.P. may seek if felt necessary for quoting such high rates. If the explanation offered by the L-1 party is not acceptable to V.S.P., the L-1 party may be recommended for disqualification while retendering the work.

40. The contractor should clearly understand and comply with the Factories Act 1948 and relieve the FEMALE WORKERS from their work site within the restricted working hours prescribed therein under section 66(b).

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41. The following deductions per workman deployed category-wise shall be made from the bills/amounts due to the contractor as applicable for the work done and such deducted amounts shall be released as mentioned below:

S.No	*Component*	*Recovery amount per labour per every WORKING DAY (in Rs.)*			*To be released when*
		UN-SKILLED	*SEMI-SKILLED*	*SKILLED*	
01	*Notice pay*	₹. 23.68 ps	₹. 26.77 ps	₹.31.49 ps	After the Contractor makes payment to the workmen in the presence of ***Engineer I/C and CLC representatives,*** *a cer*tificate to this effect is to be enclosed with pre-final bill. (***to be paid with pre-final bill***)
02	*Retrenchment compensation*	₹. 11.84 ps	₹. 13.39 ps	₹. 15.75 ps	
03	*Leave with wages*	₹. 14.57 ps	₹. 16.48 ps	₹. 19.38 ps	
Sub-total		₹. 50.09 ps	₹. 56.64 ps	₹. 66.62 ps	
04	*Bonus*	₹. 11.55 ps	₹. 11.55 ps	₹. 11.55 ps	After the Contractor makes payment to the workmen in the presence of ***Engineer I/C and CLC representatives, a*** certificate to this effect is to be enclosed with RA bill / pre-final bill. (***to be paid with RA bill / pre-final bill as and when paid by the Contractor***)
Grand total		₹. 61.64 ps	₹. 68.19 ps	₹. 78.17 ps	
10% towards profit and overheads of Contractor		₹. 06.16 ps	₹. 06.82 ps	₹. 07.82 ps	
Total recovery amount		₹. 67.80 ps	₹. 75.01 ps	₹. 85.99 ps	

Note:

*i) The above recovery rates are effective from **01/10/2014.** In case of any statutory revision in minimum wages payable to contract workmen as notified by the Regional Labour Commissioner (Central), Hyderabad from time to time, the above recovery amounts for workmen category-wise will be revised by RINL/VSP and will be notified accordingly.*

*ii) Payment against the above component is to be made to the workmen based on **effective wages of last drawn pay.***

42. PAYMENT MODE FOR BILL AMOUNTS:

42.1 Following are the options available to the Contractors for availing e-payments.

42.1.1 EFT System: Under this system Banks offer their customers money Transfer service from account of any bank branch to any other Bank Branch. The EFT system presently covers all the branches of about 77 banks located at 15 centers indicated below, where clearing houses are managed by RBI i.e.,
i) New Delhi ii) Chandigarh iii) Kanpur iv) Jaipur v) Ahmedabad vi) Mumbai vii) Nagpur viii) Hyderabad ix) Bangalore x) Chennai xi) Trivendrum xii) Kolkata xiii) Bhubaneswar xiv) Guwahati xv) Patna.

42.1.2 Direct Credit: Suppliers opting for this system may open Bank accounts with any one of the following banks.

i)	State Bank of India	-	Steel Plant Branch
ii)	Canara Bank	-	Steel Plant Branch
iii)	Bank of Baroda	-	Steel Plant Branch
iv)	State Bank of Hyderabad	-	Steel Plant Township Branch
v)	Andhra Bank	-	Steel Plant Township Branch
vi)	UCO Bank	-	Steel Plant Township Branch
vii)	IDBI	-	Visakhapatnam Branch

42.2 The Successful tenderer shall agree that all the payment due and payable in terms of the contract will be paid direct to his bank account and he shall give the bank account number and the address of the Bank in which the money is to be deposited" as per the format given below:

(1) Party Code :

(2) Option : RTGS / EFT

(3) Beneficiary Details

a) Name of Beneficiary (Max.35 characters) :

b) Bank Name (Max. 35 characters) :

c) Branch Name (Max. 35 characters) :

d) Account Number (Max. 35 characters) :

e) Account type (Max. 35 characters) :

(Savings / Current / Overdraft) [Mention Code No. also]

f) Beneficiary Bank's IFSC Code (Max. 11 characters):

(For RTGS Mode only)

g) Beneficiary Bank's MICR Code (Max.09 characters):

(For EFT Mode only)

(Signature of the Party / Contractor)

Name:

Desgn:

CERTIFICATE

Certified that the above particulars are found to be correct and matching with our records in respect of the above beneficiary.

Sd/–……

(Signature of Branch Manager)

Name :

Seal of Bank :

42.3 The contractor has to submit their bank account details in VSP format duly certified by Concerned Bank Manager for the purpose of making electronic payment before submission of First Running Account Bill, failing which the bill will not be processed.

42.4. The Successful tenderer is required to give an undertaking to the Finance Department of VSP that the payment made by RINL/ VSP of any sum due to him by directly remitting the same in his bank, the address and the number of which is to be furnished, shall be in full discharge of the particular bill raised by him, and that he shall not have any claim in respect of the same".

42.5 *In respect of payment made through Electronic Fund Transfer mechanism or Direct Credit to the supplier's/contractor's bank account, the supplier/contractor/receiver should intimate discrepancies, if any, within 10 days from the date of dispatch of intimation letter of payment to them to Finance Department of VSP failing which it shall be presumed that the funds have reached to their bank account and that no claims will be entertained after the said 10 days.*

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43. CLAUSES CONCERNING CENVAT AGAINST EXCISE DUTY:

a) The tenderer shall specify the percentage of CENVAT benefit on quoted price for which they shall furnish the duty paying documents.

b) The successful tenderer shall take necessary steps to comply with the rules and provisions of central excise and service tax law facilitating VSP to avail CENVAT credit.

c) The amount of CENVAT benefit declared shall be deducted from the tendered price for the purpose of tender evaluation i.e. the evaluation shall be on the net of CENVAT benefit.

d) The invoice raised by the Contractor should clearly mention VSP as the consignee (Consignee: RINL, VSP, A/c: Name of the contractor). It should be ensured that material has been delivered along with the duplicate for transporter copy of the invoice, based on which CENVAT credit is to be claimed.

e) The duty paying documents shall be submitted as soon as the material is procured by the agency for incorporation in the work. The CENVAT benefit offered by the agency will be deducted from each bill on the offered percentage basis and will be released to the extent CENVAT benefit could be availed by VSP. The contractor shall extend all possible help to facilitate VSP to avail CENVAT benefit. If CENVAT benefit could not be availed by VSP due to reasons attributable to the contractor, such amount will not be released by VSP.

f) In the event the CENVAT benefit realized by VSP (based on documents) is in excess of the CENVAT benefit offered by the agency/contractor, the refund will be restricted to the benefit offered by the agency. The excess amount realized from Excise Authorities will be to the credit of VSP only.

g) Material once received in to the factory would not be allowed to go outside the factory premises for any reason. Excess/Rejected material will be allowed to be taken back after complying with the provisions of CE Act.

44. RINL reserves the right to reject the offers of tenderers whose performance is “poor” in awarded/ongoing works if any”.

45. VSP after opening of tender/bid document may seek in writing, documents/clarifications which are necessary for evaluation of eligibility/prequalification stipulated in the NIT.

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SCOPE OF WORK

WORK DESCRIPTION : Mechanical maintenance of TG-5 and TB-4 and their auxiliaries.

01. OIL COOLERS MAINTENANCE:

Remove water box end cover on both sides after making proper material handling arrangement. Clean the tubes by mechanical method with lengthy rod or with high pressure water jet to the satisfaction of Engineer-in-Charge. Replace the gasket and 'O' ring of water box end cover, if required. Gasket sheet and 'O' ring cord will be issued by VSP free of cost. Remove water box end covers inside scale. Fix water box end covers in position. Leakages, if any on water side or oil side are to be attended by agency. Area is to be cleaned to the satisfaction of Engineer-in-Charge after job is over.
Note: Maintenance of one cooler is considered as one unit for billing purpose.

02. LUBE OIL FILTERS REPLACEMENT:

Shift spare oil filters from stores to site. Open vent line joint of oil filter. Drain oil by running lube oil centrifuge. Remove filter top cover bolts and open the cover. Remove old filters. Put spare filters in position. Fill oil slowly to avoid drop in oil header pressure. Put filter top cover in position and tighten the bolts. Oil leak, if any is to be attended. Removed filters are to be cleaned or disposed of as instructed by Engineer-in-Charge.
Note: Replacement of one filter unit is considered as one unit for billing purpose.

03. LUBE OIL CENTRIFUGE BOWL CLEANING AND PREVENTIVE MAINTENANCE:

Open centrifuge top cover. Loosen bowl lock nut. Bowl plates which are attached to the vertical column are to be removed. Clean bowl plates with cleaning agent and marking cloth. Bowl mode [purifier or clarifier] is to be changed, if required. Clean bowl housing. Assemble bowl plates and tighten lock nuts. Clean suction strainer, if required. Check gear box oil condition and change oil, if required. Oil will be provided by VSP free of cost. Run centrifuge after assembly and check whether it is rotating at full speed or not. When centrifuge is in purification mode, water sealing is required. If the sealing water valve is not in good condition, it is to be changed.
Note: Maintenance of one centrifuge is considered as one unit for billing purpose.

04. RUNNING OF LUBE OIL CENTRIFUGES AND INSPECTION DURING ITS RUNNING:

Start lube oil centrifuge as per SOP provided by VSP and keep running for minimum 8 hours. Check for oil leakages during running of centrifuge and after stopping the unit immediately. Oil leak or any abnormalities observed during centrifuge running are to be reported to the Engineer-in-charge or his representative.
Note: There are 5 lube oil centrifuges each for Turbo generators and Turbo Blowers. Running of all 5 centrifuges for TGs or TBs is considered as one unit for billing purpose.

05. LUBE OIL PUMPS COUPLING REPLACEMENT:

De-couple pump and motor. Inspect coupling and replace coupling hubs, spider etc., if required. Align pump and motor and coupling them.
Note: Coupling replacement in one pump is considered as one unit for billing purpose.

06. COOLING WATER BOOSTER PUMP COUPLING REPLACEMENT:

De-couple pump and motor. Inspect coupling and replace coupling hubs, spider etc., if required. Align pump and motor and coupling them.
Note: Coupling replacement in one pump is considered as one unit for billing purpose.

07. LUBE OIL PUMP OVERHAULING:

De-couple pump and motor. Inspect coupling and replace coupling hubs, spider etc., if required. Remove the pump from position and dismantle it. Inspect oil seal, bearings & internals and replace, if required. Spares will be issued free of cost by VSP. Position the assembled pump or spare pump issued by VSP free of cost. Align pump and motor and coupling them.
Note: Overhauling of one pump is considered as one unit for billing purpose.

08. COOLING WATER BOOSTER PUMP OVERHAULING:

De-couple pump and motor. Inspect coupling and replace coupling hubs, spider etc., if required. Remove the pump from position and dismantle it. Inspect oil seal, bearings and internals and replace, if required. Spares will be issued free of cost by VSP. Position the assembled pump or spare pump issued by VSP free of cost. Align pump and motor and coupling is to be done.
Note: Overhauling of one pump is considered as one unit for billing purpose.

09. LUBE OIL/ COOLING WATER BOOSTER PUMP NRV SERVICING:

Open NRV top cover. Inspect NRV operation and check its proper closing. Overhaul NRV to make it free and provide necessary washer to ensure proper opening and closing of NRV. Box-up the top cover and attend the oil leak, if any, after charging oil.
Note: NRV servicing in one pump is considered as one unit for billing purpose.

10. TURBINE FRONT/REAR JOURNAL AND THRUST BEARING INSPECTION:

Remove gland steam line. Open bolts and remove housing top cover. Remove thrust bearing top half for front bearing. Remove top half of journal bearing. Remove bottom half of thrust bearing for front bearing. Remove jacking oil lines of journal bearing and bottom half of journal bearing after jacking it. Polish journal and journal bearing. If required, bearing is to be replaced. Centre the bearing with respect to casing and correct pedestal skewness. Assemble bearing and box-up top cover.
Note: Inspection of one Bearing is considered as one unit for billing purpose.

11. CONDENSATE EXTRACTION PUMP PREVENTIVE MAINTENANCE:

Open the bearing cover bolts and remove the split covers. Clean the covers thoroughly. Drain oil in the bearing sump and clean inside surface with marking cloth thoroughly. Take out gauge glass unit and clean thoroughly. Change the glass or unit if required and fix it in position. Flush the bearing sump with fresh oil and clean inside surface. Fix drain plug in position and top up fresh oil till required level in gauge glass. Fix bearing covers in position. Inspect coupling bolts and change coupling bush or bolt assembly, if required. Check and improve water flow through cooling coil. Replace gland packing, if required. Tighten parting plane bolts, suction & discharge flange bolts, if required.
Note: Preventive maintenance of one CEP is considered as one unit for billing purpose.

12. CEP SUCTION STRAINER CLEANING:

Open the union/flange joint in vent line. Open strainer top cover bolts and remove the cover carefully. Take out strainer and clean thoroughly with water, air and nylon brush. Put it in position. Prepare strainer top cover gasket and change, if required, after cleaning the surface. Put top cover in position and tighten the bolts. Connect vent line and tighten union/flange bolts.
Note: Suction strainer cleaning in one CEP is considered as one unit for billing purpose.

13. CEP TOP BEARING 29420E REPLACEMENT:

Open motor fixing bolts and take out motor with the help of EOT crane. Open the bearing cover bolts and remove the split covers. Clean the covers thoroughly. Drain oil in the bearing sump. Take out pump coupling half. Remove thrust bearing bush from the bearing. Take out old bearing. Open union joints in water lines of cooling coil carefully without damaging the coil. Take out cooling coil. Clean the inside surface thoroughly with marking cloth. Prepare and place gasket below bearing outer race. Check the condition of cooling coil and replace, if required. Put the new bearing in position and check its contact with outer race. Fix thrust bearing bush in position. Place pump coupling half in position. Check pump float and lock it in middle position. Check free rotation of pump in middle position. Take out gauge glass unit and clean thoroughly. Change the glass or unit, if required and fix it in position. Flush the bearing sump with fresh oil and clean inside surface. Fix drain plug in position and top up fresh oil till required level in gauge glass. Fix bearing covers in position. Put motor back in position and tighten bolts.
Note: Bearing replacement in one CEP is considered as one unit for billing purpose.

14. CEP OVERHAULING:

Open motor fixing bolts and take out the motor with the help of EOT crane. Open the coupling locknut and take out the coupling hub. Open the bearing cover bolts and remove split covers. Take out bearing and drain oil. Disconnect bearing cooling water lines, gland sealing line and pressure equalizing line. Open suction flange bolts. Open discharge flange bolts. Open CEP foundation bolts. Take out the CEP with the help of EOT crane and place it on sleepers horizontally. Open the intermediate piece (containing bearing sump) bolts and take it out with the help of EOT crane. Open the discharge head bolts and take it out with the help of EOT crane. Open the bolts of the pipes enclosing the shafts and remove the top half (motor side) out. Remove the intermediate bearing and inspect it. Change intermediate bearing, if required, after grinding the rubber part to proper size. Open pump impeller assembly tie rods. Stage bodies are to be removed one after another. Diffusers, distance bushes, impellers are to be removed one after another. Place all the removed parts in a place shown by the Engineer-in-Charge or his representative. Intermediate coupling bolts to be opened and shafts to be separated. Remove gland sleeve and intermediate sleeve by gas heating. Run out of both the shafts to be checked and the shafts to be changed if the Engineer-in-Charge instructs. Fix new gland sleeve and intermediate sleeve to the shafts after grinding them to proper size for fitting to the shafts. The sleeves to be heated by gas heating set and fixed to the shafts. New intermediate coupling bolts to be machined to required size. Old intermediate coupling hubs is to be removed by gas heating. Fix new intermediate coupling hubs to the shafts by gas heating and tighten lock nuts. Place both the shafts and tighten coupling bolts. The stage bodies are to be made ready by fixing new wearing rings, if required. New wearing rings to be machined to required size, holes to be drilled for fixing and then to be fixed to the stage bodies. Machine new distance bushes to required size. If the diffusers and impellers are worn out they should be replaced as per the instructions of Engineer-in-Charge. After all the parts are ready then the pump should be assembled by fixing stage bodies, diffusers, distance bushes and impellers as per assembly drawing. The discharge head should be fixed to the pump and shaft assembly and bolts to be tightened. The intermediate piece containing the bearing sump should be fixed to the discharge head.

Prepare new gaskets for pump foundation, discharge flange, suction flange, cooling water lines flanges, gland sealing and pressure equalizing lines. Place the pump in position with the help of EOT crane after bringing required slings and D-shackles from the store. After placing the pump in position, tighten the foundation bolts and suction and discharge flanges bolts. Place the bearing in position after thoroughly cleaning the sump and providing a new gasket for the outer race. Top up fresh oil in the sump after fixing the split covers and drain plug. Place the coupling hub in position and place the lock nut. By using Vernier calipers and steel rule check the float of the pump and place it in the mean position by tightening the lock nut. After the lock nut is fixed the check nut should be fixed. The pump should be rotated by hand to ensure that it is freely rotating in its mean position. New gland packing should be provided in the stuffing box during the assembly itself. The cooling water lines, gland sealing line and pressure equalizing line should be fixed. Motor should be fixed in position with the help of EOT crane and the bolts should be tightened. After returning the permit and taking trial run, the flanges should be tightened if any leaks are found.
Note: Overhauling of one CEP is considered as one unit for billing purpose.

15. REPLACEMENT OF CEP WITH SPARE PUMP:

Open the motor bolts and remove the motor with the help of EOT crane. Open the coupling lock nut and remove the coupling. Open the bearing sump bolts and remove the split covers. Take out the bearing and drain oil. Take out the cooling coil after disconnecting from cooling water lines. Open cooling water lines, pressure equalizing line and gland sealing line. Open suction flange. Open discharge flange. Open intermediate piece bolts and take it out with the help of EOT crane. Open CEP foundation bolts and take out the CEP it with the help of EOT crane. Open the discharge head bolts and remove it with the help of EOT crane. The discharge head should be fixed to the spare CEP with the help of EOT crane and bolts should be tightened. New gaskets should be made ready for CEP foundation, discharge flange, suction flange, gland sealing line, pressure equalizing line and cooling water flanges. CEP should be placed in position with the help of EOT crane and suction and discharge flanges should be matched while doing so. CEP foundation bolts should be tightened. Discharge flange and suction flange bolts should be tightened. Place the intermediate piece in position and tighten the bolts. Place the bearing in position. It should be replaced if required. Sump should be thoroughly cleaned and a new gasket should be provided for outer race. While changing the bearing a new sleeve should be machined to proper size and fixed if required. Bearing sump split covers should be fixed. Bearing sump should be filled with lube oil upto 80% level. Coupling hub should be placed in position and lock nut should be placed. Check pump float with the help of Vernier calipers and steel rule. Pump should be placed in the mean position by tightening the lock nut and then the check nut should be tightened. New gland packing should be provided in the stuffing box before placing the pump in position. Pump should be rotated by hand to ensure its free rotation in its mean position. Fix cooling water lines, gland sealing line and pressure equalizing line. Motor should be placed in position with the help of EOT crane and bolts should be tightened. After returning the permit pump trial run is to be taken and flanges should be tightened in case of any leaks.
Note: Replacement of one CEP is considered as one unit for billing purpose.

16. TB-4 BLOWER SUCTION PULSE CLEAN FILTERS CLEANING:

There are 416 filters elements in total at three levels which are to be cleaned. Each filter should be removed after opening the bolts. Four filters are to be removed at one step and they should be carried to the air point shown by the Engineer-in-Charge. They should be cleaned thoroughly with service air. The four filters are to be fixed back in position. Another set of four filters are to be removed and the procedure should be repeated till all the filters are cleaned to the satisfaction of the Engineer-in-Charge. The cleaning of all the suction filters should be completed within fourteen days.

Note: There are total 416 Pulse clean filters installed in three elevations and cleaning of all filters is considered as one unit for billing purpose.

17. PULSE CLEANING SYSTEM SOLENOID SERVICING/REPLACEMENT:

Take clearance from Engineer-in-Charge. Check for air leakage points or solenoids which are not working. Take out the non-working solenoids from the position, if required. Repair solenoid, if possible; otherwise replace the solenoid issued by VSP free of cost. Reposition repaired/new solenoids.
Note: There are 108 solenoids installed and servicing of all non-working solenoids is considered as one unit for billing purpose.

18. ATTENDING PIPE LINE FLANGE (SIZE UP TO 80NB) LEAKAGES IN OIL, AIR, COOLING WATER, FEED WATER AND STEAM LINES:

Open the flange joint and remove the old gasket and clean the flange faces. Check the condition of flange faces. Metal build-up is to be done, if required. Suitable welding electrode will be issued by VSP free of cost. Grind/file the built-up faces to the required level. Prepare new gasket from sheet provided by VSP free of cost. Sheet is to be collected from VSP stores. Position new gasket and tighten the bolts. Re-tighten bolts in case leak still exists. Replacement of gland packing of drip control valves, manual isolation valves.
Note: Attending of one flange leak is considered as one unit for billing purpose.

19. ATTENDING PIPE LINE FLANGE (SIZE ABOVE 80 NB UP TO 150NB) LEAKAGES IN OIL, AIR, COOLING WATER, FEED WATER AND STEAM LINES:

Open the flange joint and remove the old gasket and clean the flange faces. Check the condition of flange faces. Metal build-up is to be done, if required. Suitable welding electrode will be issued by VSP free of cost. Grind/file the built-up faces to the required level. Prepare new gasket from sheet provided by VSP free of cost. Sheet is to be collected from VSP stores. Position new gasket and tighten the bolts. Re-tighten bolts in case leak still exists. Replace gland packing of drip control valves, manual isolation valves.
Note: Attending of one flange leak is considered as one unit for billing purpose.

20. ATTENDING PIPE LINE FLANGE (SIZE ABOVE 150 NB) LEAKAGES IN OIL, AIR, COOLING WATER, FEED WATER AND STEAM LINES:

Open the flange joint and remove the old gasket and clean the flange faces. Check the condition of flange faces. Metal build-up is to be done, if required. Suitable welding electrode will be issued by VSP free of cost. Grind/file the built-up faces to the required level. Prepare new gasket from sheet provided by VSP free of cost. Sheet is to be collected from VSP stores. Position new gasket and tighten the bolts. Re-tighten bolts in case leak still exists. Replace gland packing of drip control valves, manual isolation valves.
Note: Attending of one flange leak is considered as one unit for billing purpose.

21. ATTENDING PIPE LINE (SIZE UP TO 80 NB) WELDING LEAKAGES IN OIL, AIR, COOLING WATER, FEED WATER AND STEAM LINES:

Identify the leaking points. Shift welding machine to nearby power supply point. Shift gas cylinders and cutting set to site. Shift required pipe length to site from TPP steel storage yard or stores. Gas cut the

leaking portion of pipe. Edge preparation of old pipe line and new pipepiece is to be done by grinding. Position new pipe piece and weld it. The job is to be repeated in case leak still exists upon charging.
Note: Attending one welding leak or joint is considered as one unit for billing purpose.

22. ATTENDING PIPE LINE SIZE ABOVE 80 NB UP TO 150 NB) WELDING LEAKAGES IN OIL, AIR, COOLING WATER, FEED WATER AND STEAM LINES:

Identify the leaking points. Shift welding machine to nearby power supply point. Shift gas cylinders and cutting set to site. Shift required pipe length to site from TPP steel storage yard or stores. Gas cut the leaking portion of pipe. Edge preparation of old pipe line and new pipepiece is to be done by grinding. Position new pipe piece and weld it. The job is to be repeated in case leak still exists upon charging.
Note: Attending one welding leak or joint is considered as one unit for billing purpose.

23. ATTENDING PIPE LINE SIZE ABOVE 150 NB) WELDING LEAKAGES IN OIL, AIR, COOLING WATER, FEED WATER AND STEAM LINES:

Identify the leaking points. Shift welding machine to nearby power supply point. Shift gas cylinders and cutting set to site. Shift required pipe length to site from TPP steel storage yard or stores. Gas cut the leaking portion of pipe. Edge preparation of old pipe line and new pipepiece is to be done by grinding. Position new pipe piece and weld it. The job is to be repeated in case leak still exists upon charging.
Note: Attending one welding leak or joint is considered as one unit for billing purpose.

24. ATTENDING GLAND LEAKAGES IN OIL, AIR, COOLING WATER, FEED WATER AND STEAM LINE VALVES:

Ensure that the isolation is done before opening gland follower. Open follower bolts and lift the follower flange. Remove gland packing from the stuffing box. Put new packing provided by VSP free of cost in position and put follower flange in position. Tighten the Follower bolts. If new packing is not readily available, prepare correct size packing from rope provided by VSP free of cost.
Note: The estimate rate is for attending gland leak in various valves for one day.

25. ATTENDING TUBE LEAKAGES IN HP HEATERS OF TG-5:

Heaters are vertically mounted. Make arrangement for material handling. Remove studs and nuts of end cover. Remove end cover with help of chain pulley block. Shift the end cover away from heater. Grind the seal weld between diaphragm of 450mm diameter and end cover carefully so that diaphragm can be re-used. Shift the diaphragm away from Heater. Remove bolts of dividing plates of water box and tube sheet and take out the dividing plates. Check for tube leakage with compressed air. Plug tubes with stainless steel plugsto be provided by VSP free of cost and welding of plug with tube sheet by IBR welder. Fix the dividing plates in position. The heater shall be pneumatically tested again before final box-up. If any leaks are observed, the same shall be attended by agency. Box-up the end cover.
Note: The estimate is for plugging all leaking tubes and welding of same to tube plate in one HP Heater.

26. ATTENDING TUBE LEAKAGES IN LP HEATERS IN TG-5:

Heaters are vertically mounted. Make arrangement for material handling. Remove end cover with the help of suitable chain pulley block. Check tube leakage with compressed air. Plug tubes with brass plugs to be provided by VSP free of cost. Prepare end cover gasket and replace old gasket. Box-up the end cover.
Note: Attending of all leaking Tubes in one LP Heater is considered as one unit for billing purpose.

27. ATTENDING TUBE LEAKAGES IN LP HEATERS IN TB-4:

Make arrangement for material handling. Remove end cover. Check for tube leakage with compressed air. Plug tubes with brass plugs to be provided by VSP free of cost. Prepare end cover gasket and replace old gasket. Box-up the end cover.
Note: Attending of all leaking tubes in one LP Heater is considered as one unit for billing purpose.

28. ATTENDING TUBE LEAKAGES IN HP HEATERS IN TB-4:

Make arrangement for material handling. Remove end cover. Check for tube leakage with compressed air. Plug tubes with stainless steel plugs, to be provided by VSP free of cost. Weld plug with tube sheet by IBR welder. Box-up the end cover.
Note: The estimate is for plugging all leaking tubes and welding of same to tube plate in one HP Heater.

29. STEAM JET AIR EJECTORS FLANGE GASKET REPLACEMENT:

Attend flange leakage. Remove the flange bolts, take out old gasket, prepare new gasket from sheet provided by VSP free of cost, position new gasket and tighten the flange bolts. If required, flanges are to be separated by using chain pulley block.
Note: Replacement of gasket in one flange of Steam Jet Ejector is considered as one quantity for billing purpose.

30. GOVERNING OIL FILTER REPLACEMENT:

Remove the filter housing by loosening the threads. Take out the old filter and clean the housing inside and outside. Check the condition of 'O' Ring and replace it, if required. 'O' Ring cord will be given by VSP free of cost to prepare 'O' Ring. Put the new filter in position and tighten the Housing cover. Charge oil and check for leakage and attend the same.
Note: The estimate is for replacement one filter.

31. ACCUMULATOR N2 CHARGING:

Shift N2 cylinder to the site. Check N2 pressure in accumulator with charging kit provided by VSP free of cost on returnable basis. Charge the accumulator with N2 to a pressure as instructed by Engineer-in-charge or his representative.
Note: The estimate rate is for N_2 charging of one accumulator.

32. ESV SOLENOID VALVES SERVICING:

Take out solenoid valve after removal of coil cables. Clean thoroughly external of solenoid and make matching marks with marker for reference while assembling. Open the end face covers and remove plunger and clean it thoroughly. Ensure free movement of plunger. Assemble the covers and fix the solenoid in position.
Note: Servicing of defective solenoid(s) is in one ESV is considered as one unit for billing purpose.

33. TB-4 GOVERNING VALVE SERVICING:

Take out Rocker Arm after removing the pins. Remove the springs after marking the initial length. Rotate spindle(s) by 90^0 with the help of Eye and take it out. Remove Eye(s) from spindle(s). Assemble

the valve with new spindle(s) provided free of cost by VSP. Replace the valve gland packing provided free of cost by VSP. Open side blind flange, if required, to take out the old spindle(s).

34. GOVERNING VALVE GLAND PACKING REPLACEMENT:

Take out Rocker Arm after removing the pins. Remove the springs after marking the initial length. Take out the old gland packing. Replace the valve gland packing provided free of cost by VSP. Assemble the valve.
Note: There are 5 valves and 2 valves each installed in TG-5 and TB-4 respectively. Gland packing replacement in one valve is considered as one unit for billing purpose.

35. BLOW-OFF/ANTI-SURGE VALVE ACTUATOR SEALS REPLACEMENT:

Ensure that system is depressurized and isolated. Remove the oil hoses and replace with new one issued free of cost by VSP, if necessary. Replace copper washer issued free of cost by VSP, if required. Remove the actuator from position and dismantle it. Take out the old seals and replace them with new seal kit provided free of cost by VSP. Fix the actuator in position and start oil system and attend oil leak, if any.
Note: Seals replacement in one actuator is considered as one unit for billing purpose.

36. BLOW-OFF /ANTI SURGE VALVES ACTUATOR REPLACEMENT:

Ensure that system is depressurized and isolated. Remove the oil hoses and replace with new one issued free of cost by VSP, if necessary. Replace copper washer issued free of cost by VSP, if required. Remove the old actuator from position and shift it to the place as shown by Engineer-in-charge. Shift the spare actuator to site and fix it in position. Actuator will be provided free of cost by VSP. Start oil system and attend oil leak, if any.
Note: One actuator replacement is considered as one unit for billing purpose.

37. BLOW-OFF/ANTI SURGE VALVES SOLENOID SEALS REPLACEMENT:

Ensure that system is depressurized and isolated. Remove the oil hoses and replace with new one issued free of cost by VSP, if necessary. Replace copper washer issued free of cost by VSP, if required. Remove the solenoid from position and dismantle it. Take out the old seals and replace them with new seal kit provided free of cost by VSP. Fix the solenoid in position and start oil system and attend oil leak, if any.
Note: Seals replacement in one solenoid is considered as one unit for billing purpose.

38. BLOW-OFF/ANTI SURGE VALVES SOLENOID REPLACEMENT:

Ensure that system is depressurized and isolated. Remove the oil hoses and replace with new one issued free of cost by VSP, if necessary. Replace copper washer issued free of cost by VSP, if required. Remove the old solenoid from position and shift it to a place shown by Engineer-in-charge. Shift the spare solenoid to site and fix it in position. Solenoid will be provided free of cost by VSP. Start oil system and attend oil leak, if any.
Note: One solenoid replacement is considered as one unit for billing purpose.

39. ESV HYDRAULIC ACTUATOR SEALS KIT REPLACEMENT:

Take out the hydraulic actuator. Dismantle the actuator and remove old seals. Assemble with new seal kit issued by VSP free of cost. Fix the actuator in position. TG-5 has 2 ESVs and TB-4 has 1 ESV installed.
Note: Seal kit replacement in one ESV is considered as one unit for billing purpose.

40. ESV OVERHAULING INCLUDING STEAM SECTION:

Take out the hydraulic actuator. Dismantle the actuator and remove old seals. Assemble with new seal kit issued by VSP free of cost. Dismantle the steam section by removing segment rings etc. Inspect the condition of ESV Cone, Spindle, Seal ring and replace, if required. Ensure proper blue contact of cone with seat, seal ring with body and lapping is to be done, if required. Assemble the steam section and ensure pre-lift and main lift of ESV as per drawing. Fix hydraulic actuator in position and check the valve operation. Rectify problems, ifany.
Note: TG-5 has 2 ESVs and TB-4 has 1 ESV. Overhauling of one ESV is considered as one unit for billing purpose.

41. TG-5 TURBINE GOVERNING SYSTEM CONTROL VALVE SPINDLE REPLACEMENT:
Delink from the actuator. Remove the arm and springs. Open control valve flange bolts and nuts. Take out control valve unit. Open the spindle Eye. Remove the cone from control valve body. Replace the damaged parts with spares. Remove old gland packing and provide new gland packing. Re-assemble the cone. Box-up all parts. Connect control valve with actuator.
Note: There are total 5 spindles in TG-5 and replacement of one spindle is considered as one unit for billing purpose.

42. BOILER FEED PUMP PREVENTIVE MAINTENANCE:

Take out booster pump duplex suction strainers (both) after opening top cover. Clean the filter elements with air. Replace elements, if required. Elements will be issued by VSP free of cost. Prepare top cover gasket from sheet issued by VSP free of cost and replace, if required. Fix top cover again and tighten bolts. Attend feed water leak, if any.
Note: Preventive maintenance in one Boiler Feed pump is considered as one unit for billing purpose.

43. BOILER FEED PUMP LOP DISCHARGE FILTER CLEANING:

Remove filter elements from position after draining oil from housing. Clean inside of housing thoroughly. Clean filter elements with diesel and cloth and assemble carefully and properly. Position filter assembly and charge oil carefully. Attend leak, if any.
Note: There are 2 filter elements installed in one BFP and cleaning of both filter elements is considered as one unit for billing purpose.

44. BOILER FEED PUMP LOP REPLACEMENT/SERVICING:

Remove motor foundation bolts and take out motor after removing the cables. Take out pump. Service the removed pump. If it is beyond repair, spare pump issued by VSP free of cost is to be put in position and connected. Inspect coupling halves and spider. Replace the damaged parts, if required. Place the motor in position. Tighten foundation bolts.
Note: There are 2 pumps installed and servicing/replacement of one pump is considered as one unit for billing purpose.

45. BFP LUBE OIL COOLERS TUBES CLEANING:

Close water and oil valves. Take out cooler from position. Open cooler end covers. Clean tubes manually with a long rod wire brush. Change tube bundle end cover 'O' ring and gasket, if required. Gasket sheet and 'O' ring cord will be provided by VSP free of cost. Charge water and oil side. Clean the area to the satisfaction of Engineer-in-Charge.
Note: There are 2 coolers installed and cleaning of one cooler is considered as one unit for billing purpose.

46. BFP LUBE OIL COOLERS SHELL AND TUBES CLEANING:

Close water and oil valves. Take out cooler from position. Open cooler end covers and dismantle shell from cooler. Clean tubes manually with a long rod wire brush. Clean shell and tubes bundle. Change tube bundle end cover 'O' ring and gasket, if required. Gasket sheet and 'O' ring cord are to be provided by VSP free of cost. Reassemble oil cooler. Charge water and oil side. Clean the area to the satisfaction of Engineer-in-Charge.
Note: There are 2 coolers installed and cleaning of one cooler is considered as one unit for billing purpose.

47. BFP BALANCING DRUM AND BUSH INSPECTION AND SERVICING:

Ensure electrical and mechanical shutdown of BFP. Remove the coupling guard and decouple pump and gear box. Open cooling water lines and balancing leak off line. Shift 'Cartridge removal' fixture trolley to site and fix to pump body. Pull out the pump cartridge. Shift the pump cartridge to maintenance post. Clean the pump cartridge. Remove pump coupling. Dismantle the bearing housing. Take out balancing drum. Check clearance of balancing drum. Change/replace damaged parts. Reassemble balancing drum and bearing housing after ensuring necessary bearing clearances. Fix coupling on pump shaft. Shift overhauled cartridge to site. Put the cartridge on the fixture and insert in to pump body. Remove and shift fixture trolley. Reconnect the cooling water lines and balancing leak off lines. Couple the pump and gearbox after clearance from the Engineer-in-Charge.
Note: There are 2 pumps installed and overhauling of one pump is considered as one unit for billing purpose.

48. BOOSTER PUMP OVERHAUL:

Ensure electrical and mechanical shutdown of BFP. De-couple pump from motor. Disconnect oil lines and water lines. Arrange proper support to the suction and discharge pipes and open discharge and suction flanges. Open foundation bolts, take out the pump and shift to maintenance post. Clean the pump foundation area and suction and discharge flanges. Dismantle the bearing housing; open the mechanical seal and stuffing box. Open top casing of the pump. Take out the rotor and clean all parts. Inspect all the parts, replace required parts. Do metal build up on the eroded areas like parting plane and inside pump volute. Reassemble the pump with necessary clearances on casing rings and bearings. Shift and place the pump in position with required coupling gap. Connect suction and discharge flanges with new gaskets after clearance from Engineer-in-Charge. Connect oil lines and water lines. Align motor and couple it. Fix coupling guard.
Note: There are 2 pumps installed and overhauling of one pump is considered as one unitfor billing purpose.

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49. BFP / BOOSTER PUMP MECHANICAL SEAL SERVICING/ REPLACEMENT:

Ensure electrical and mechanical shutdown of BFP. Decouple gear box/motor in case of DE side. Disconnect seal cooling water lines and bearing oil lines and CW lines. Dismantle the bearing housing and remove. Remove the thrust collar by heating incase of DE side. Take out old seal and replace it with spare. Assemble bearings along with thrust collar. Maintain necessary dimensions and clearances during assembly. Connect seal cooling water lines and bearing oil lines and CW lines. Couple the motor.
Note: Servicing/replacement of one seal is considered as one unit for billing purpose.

50. BFP GEARBOX OVERHAULING:

Ensure electrical of shutdown of BFP and lube oil pumps. Decouple motor and pump, disconnect oil lines. Remove gearbox cover. Check bearings clearances and backlash of gears. Take out both input and output shafts assemblies. Remove couplings from shaft. Replace the shafts (Input/output), gears and bearings, if required. Re-assemble the gears on shaft and put on gearbox. Box-up the top cover after fixing bearings. Do alignment with motor first and then do alignment with main pump. Lock the main pump. Reconnect oil lines and cooling water lines. Couple gearbox with motor and main pump.
Note: Overhauling of one gear box is considered as one unit for billing purpose.

51. BFP GEARBOX INSPECTION:

Ensure electrical of shutdown of BFP and lube oil pumps. Remove gearbox cover. Check bearings clearances and backlash of gears. Box-up the bearings if clearances and backlash of gears is within norm. Box-up the gear box cover.
Note: Inspection of one gear box is considered as one unit for billing purpose.

52. REPLACEMENT OF BFP CARTRIDGE:

Ensure electrical and mechanical shutdown of BFP. Open cooling water lines and balancing leak off line. Remove suction side ring. Shift 'Cartridge removal' fixture trolley to site and fix to pump body. Pull out the pump cartridge. Shift the pump cartridge to maintenance post. Clean the pump cartridge. Help/assist in overhauling of cartridge. Shift overhauled cartridge to site. Put the cartridge on the fixture and insert in to pump body. Remove and shift fixture trolley. Check and correct bearing load on DE and NDE sides and box-up the bearings. Do alignment with gearbox. Reconnect the cooling water lines and balancing leak off lines. Couple the pump and gear box after clearance from the Engineer-in-Charge.
Note: Replacement of one BFP cartridge is considered as one unit for billing purpose.

53. DRIP CONTROL VALVE REPLACEMENT OF HP HEATERS AT DEAERATOR AND AT HP HEATERS & LP HEATERS:

Collect new drip control valve from TPP stores and shift it to De-aerator. Remove the instrument air lines of old drip valve. Cut both ends of old valve and remove the old valve from position. Prepare the edges for welding. Place new valve in position and weld both ends. Shift old valve to a place shown by Engineer-in-Charge.
Note: Replacement of one control valve is considered as one unit for billing purpose.

54. NRV REPAIR/ REPLACEMENT IN DRIP LINES OF HP HEATERS AT DEAERATOR:

Inspect NRV seat and disc for proper closing and opening. Lapping of disc is to be done to ensure proper sealing in closed condition. Box-up the NRV and its top cover. Replace NRV, if required. New NRV is to be shifted to site from TPP stores. NRV is a swing check NRV with welded ends.
Note: Replacement/repair of one NRV is considered as one unit for billing purpose.

55. PRDS VALVE PNEUMATIC ACTUATOR SERVICING/REPLACEMENT:

De-couple actuator from valve. Make material handling arrangement for lifting actuator. Dismantle PRDS actuator and inspect internals. Replace diaphragm and other parts, if required. Assemble actuator and fix in position. Replace actuator, if required. New actuator is to be drawn from TPP stores and shifted to site. Couple actuator and valve and adjust valve stroke.
Note: Servicing/replacement of one actuator is considered as one unit for billing purpose.

56. DEPLOYMENT OF UN-SKILLED MAN POWER FOR MISCELLANEOUS MAINTENANCE JOBS:

To carry out miscellaneous jobs (un-planned), contractor must be able to deploy adequate un-skilled man power as per the site requirement on round the clock basis. Payment shall be made as per actual man days of un-skilled man power deployed.

57. DEPLOYMENT OF SEMI-SKILLED MAN POWER FOR MISCELLANEOUS MAINTENANCE JOBS:

To carry out miscellaneous jobs (un-planned), contractor must be able to deploy adequate semi-skilled man power as per the site requirement on round the clock basis. Payment shall be made as per actual man days of semi-skilled man power deployed.

58. DEPLOYMENT OF SKILLED MAN POWER FOR MISCELLANEOUS JOBS:

To carry out miscellaneous jobs (un-planned), contractor must be able to deploy adequate skilled man power as per the site requirement on round the clock basis. Payment shall be made as per actual man days of skilled man power deployed.

TERMS AND CONDITIONS

WORK DESC : Mechanical Maintenance of TG-5 and TB-4 and their auxiliaries

Cond No	Cond Desc
01	Contractor must visit the site, understand fully the scope/extent of work, ways and means including handling equipment, tools and tackles, man-power required for doing the job before quoting.
02	The contractor has to make temporary platforms/scaffoldings wherever necessary for carrying out the above job and the same has to be removed after the completion of job.
03	The Contractor has to bring the following items for executing the contract: a) Welding Machines. b) LPG & Oxygen cutting sets. c) All tools and tackles including slugging spanners except special purpose tools and tackles. d) All safety appliances. e) Grinding machines, drilling machines and grinding wheels, cutters, drill bits of various sizes, etc. f) All materials handling equipment such as chain pulleys, max pullers etc.
04	The following items will be provided by VSP: a) Scaffolding pipes and clamps on returnable basis. b) Special purpose tools and tackles, if required, on returnable basis. c) Air hose for cleaning TB suction and other filters. d) Power supply.
05	Electrical supply shall be given to a switch board to be arranged by the party. Separate individual connections to various equipment is to be drawn by a qualified electrician of the party. The contractor has to use all standard electrical fittings duly earthed.
06	Flood lights/hand lamps required shall have to be arranged by the party. Only 24V Hand Lamps to be used.
07	The contractor has to follow VSP safety rules while executing the job. Safety clearance is to be taken by the contractor from VSP safety department before starting the job. The workmen engaged by the contractor should have height passes issued by safety department for the work.
08	No workman will be allowed to work without wearing safety helmet & shoes.
09	The party has to remove all the scrap in the area, shift to a place shown by the Engineer-in-charge and the work area is to be cleaned after the completion of the job.

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TERMS AND CONDITIONS

WORK DESC : Mechanical Maintenance of TG-5 and TB-4 and their auxiliaries

Cond No	Cond Desc
10	Any job which is not included in the scope of work, is minor in nature and is inherent part of the job shall be executed by the contractor at no extra cost.
11	During the course of contract if the contractor is allowed to erect any temporary shed for storing his materials the same has to be dismantled and the area is to be cleaned completely before submitting his final bill.
12	At any time during the course of contract, work should not get affected due to lack of Manpower or Tools & Tackles.
13	The party should be in a position to start the work on telephonic information.
14	The party has to take Work authorization/ permit to work from Engineer- In-Charge or his representative before starting the job and the same has to be returned immediately after the completion of job. However, for jobs inside closed areas/confined spaces, the work permit has to be taken/returned from the concerned engineer on day to day basis.
15	The contract is valid for 12 months.
16	Sales Tax clause: The scope of materials supply and consumable supply in the present proposal are as follows: a) Materials to be supplied by VSP: Spares, valves, fasteners, structural, lube/hydraulic oil, paint. b) Consumable to be supplied by VSP: LPG, Oxygen gas, gasket, grease, MS electrodes. c) Material to be supplied by Contractor: NIL. d) Consumable to be supplied by Contractor: NIL. The deduction of sales tax shall be done as per rules prevailing from time to time.
17	Performance guarantee: NIL. A defect liability period of 3 months from the date of completion of work shall be considered for this contract. If any defective work is observed during the defect liability period the contractor shall rectify the defective work at his own cost immediately after receiving information from the Engineer-in-charge. Engineer-in-charge shall be **DGM (M).**
18	The contractor shall ensure usage of ISI marked regulators, hoses, nozzles, cutting torches, welding holders and cables for the cutting and welding works. This must be adhered to strictly.

Signature of the Tenderer

RAHSTRIYA ISPAT NIGAM LIMITED
VISAKHAPATNAM STEEL PLANT
VISAKHAPATNAM - 530031

BILL OF QUANTITIES

PR No / Date: 73000662 / 21.03.2015 Report Date : 22.03.2015
Pur . Org.: WORKS CONTRACTS

MSS: 5050615003 : MECH. MAINT. TG-5 & TB-4 & AUXILIARIES
MECH. MAINT. TG-5 & TB-4 & AUXILIARIES

The BOQ Items are taken as per the following Rates.

	Central Rates	VSP Rates
Skilled	367.000	599.400
Semi Skilled	312.000	514.250
Unskilled	276.000	458.500

Sl.No	Service Number	Description of the item	Qty	UOM	Rate	Amount
1	510007692	Oil coolers maintenance	8.000	NO	3,522.14	28,177.12
2	510007693	Lube oil filters replacement	12.000	NO	1,516.00	18,192.00
3	510007694	Lube oil centrifuge bowl cleaning and preventive maintenance	12.000	NO	1,572.00	18,864.00
4	510007695	Running of lube oil centrifuge and inspection during its running	208.000	SET	514.25	106,964.00
5	510007696	Lube oil pumps coupling replacement	2.000	NO	2,545.00	5,090.00
6	510007697	Cooling water booster pump coupling replacement	1.000	NO	5,090.00	5,090.00
7	510007698	Lube oil pump overhauling	1.000	NO	10,180.00	10,180.00
8	510007699	Cooling water booster pump overhauling	1.000	NO	12,724.00	12,724.00
9	510007700	Lube oil pump/cooling water booster pump NRV servicing	2.000	NO	2,545.00	5,090.00
10	510007701	Turbine front/rear journal and thrust bearing inspection	1.000	NO	71,257.00	71,257.00
11	510007702	Condensate extraction pump preventive maintenance	60.000	NO	2,545.00	152,700.00
12	510007703	CEP suction strainer cleaning	15.000	NO	1,945.00	29,175.00
13	510007704	CEP top bearing 29420E replacement	1.000	NO	7,635.00	7,635.00
14	510007705	CEP overhauling	1.000	NO	36,028.00	36,028.00
15	510007706	Replacement of CEP with spare pump	1.000	NO	15,905.00	15,905.00
16	510007707	TB-4 blower suction pulse clean filters cleaning	4.000	SET	37,795.00	151,180.00
17	510007708	Pulse cleaning system solenoid servicing/ replacement	1.000	SET	9,433.00	9,433.00
18	510007709	Attending pipe line flange (size up to 80 NB) leakages in cooling water, feed water and steam lines	5.000	NO	1,572.00	7,860.00
19	510007710	Attending pipe line flange (size above 80 NB up to 150 NB) leakages in cooling water, feed water and steam lines	3.000	NO	2,545.00	7,635.00
20	510007711	Attending pipe line flange (size above 150 NB)leakages in cooling water, feed water and steam lines	2.000	NO	3,003.00	6,006.00
21	510007712	Attending pipe line (size up to 80 NB)welding leakage in cooling water, feed water and steam lines	3.000	NO	1,015.00	3,045.00
22	510007713	Attending pipe line (size above 80 NB up to 150 NB)welding leakage in cooling water, feed water and steam lines	3.000	NO	1,502.00	4,506.00
23	510007714	Attending pipe line (size above 150 NB)welding leakage in cooling water, feed water and steam lines	2.000	NO	1,988.00	3,976.00
24	510007715	Attending gland leakages in cooling water, feed water and steam lines in TB-4 and TG-5	20.000	NO	814.00	16,280.00
25	510007716	Attending tube leakages in HP Heaters of TG-5	1.000	NO	28,439.81	28,439.81
26	510007717	Attending tube leakages in LP Heaters of TG-5	1.000	NO	18,020.00	18,020.00
27	510007718	Attending tube leakages in LP Heaters of TB-4	1.000	NO	15,017.00	15,017.00
28	510007719	Attending tube leakages in HP Heaters of TB-4	1.000	NO	24,027.00	24,027.00
29	510007720	Steam Jet Air Ejectors flange gasket replacement	4.000	NO	7,635.00	30,540.00

Signature of the Tenderer

RAHSTRIYA ISPAT NIGAM LIMITED
VISAKHAPATNAM STEEL PLANT
VISAKHAPATNAM - 530031

BILL OF QUANTITIES

Sl.No	Service Number	Description of the item	Qty	UOM	Rate	Amount
30	510007721	Governing oil filter replacement	4.000	NO	973.00	3,892.00
31	510007722	Accumulator N 2 charging	10.000	NO	1,058.00	10,580.00
32	510007723	ESV solenoid valves servicing	3.000	NO	1,572.00	4,716.00
33	510007724	TB-4 Governing valve servicing	1.000	NO	45,808.00	45,808.00
34	510007725	Governing valve gland packing replacement	1.000	NO	9,151.00	9,151.00
35	510007726	Blow-off/ Anti-surge valve actuator seals replacement	1.000	NO	16,245.00	16,245.00
36	510007727	Blow-off/ Anti-surge valves actuator replacement	1.000	NO	7,952.00	7,952.00
37	510007728	Blow-off/ Anti-surge valves solenoid seals replacement	1.000	NO	5,090.00	5,090.00
38	510007729	Blow-off/ Anti-surge valves solenoid replacement	1.000	NO	3,518.00	3,518.00
39	510007730	ESV hydraulic actuator seal kit replacement	1.000	NO	12,184.00	12,184.00
40	510007731	ESV overhauling including steam section	1.000	NO	50,898.00	50,898.00
41	510007732	TG-5 turbine governing system control valve spindle replacement	1.000	NO	18,302.00	18,302.00
42	510007733	Boiler feed pump preventive maintenance	12.000	NO	2,545.00	30,540.00
43	510007734	Boiler feed pump LOP discharge filter cleaning	2.000	NO	4,061.00	8,122.00
44	510007735	Boiler feed pump LOP replacement/servicing	2.000	NO	5,090.00	10,180.00
45	510007736	BFP lube oil cooler tubes cleaning	16.000	NO	2,031.00	32,496.00
46	510007737	BFP lube oil coolers shell and tubes cleaning	2.000	NO	9,010.00	18,020.00
47	510007738	BFP balancing drum and bush inspection and servicing	1.000	NO	41,180.00	41,180.00
48	510007739	Booster pump overhaul	1.000	NO	28,141.00	28,141.00
49	510007740	BFP / Booster pump mechanical seal servicing/ replacement	4.000	NO	12,014.00	48,056.00
50	510007741	BFP gearbox overhauling	1.000	NO	28,822.00	28,822.00
51	510007742	BFP gearbox inspection	1.000	NO	10,180.00	10,180.00
52	510007743	Replacement of BFP cartridge	1.000	NO	24,368.00	24,368.00
53	510007744	Drip control valve replacement of HP Heaters at De-aerator and at HP Heaters & LP Heaters	1.000	NO	6,092.00	6,092.00
54	510007745	NRV repair/ replacement in Drip lines of HP Heaters at De-aerator	1.000	NO	6,007.00	6,007.00
55	510007746	PRDS valve pneumatic actuator servicing/ replacement	1.000	NO	9,957.00	9,957.00
56	510007747	Deployment of un-skilled man power for miscellaneous jobs	980.000	MDY	458.50	449,330.00
57	510007748	Deployment of semi-skilled man power for miscellaneous jobs	980.000	MDY	514.25	503,965.00
58	510007749	Deployment of skilled Man power for miscellaneous jobs	50.000	MDY	599.40	29,970.00
Total Value: In words : twenty three lakh twenty two thousand seven hundred ninety seven rupees ninety three paise						2,322,797.93

Signature of the Tendere

Signature of the Tenderer

FORM'G'
RASHTRIYA ISPAT NIGAM LIMITED
VISAKHAPATNAM STEEL PLANT
WORKS CONTRACTS DEPARTMENT
BILL OF QUANTITIES (BOQ)

TENDER NO: 75222-0

Name of the work :

MECHANICAL MAINTENANCE OF TG-5 AND TG-4 AND THEIR AUXILIARIES

1. The quantities indicated are approximate and may vary to a wide range. Payment shall be made as per the actual work carried out at corresponding accepted rate.
2. Wherever old items are replaced for fixing new items, all related connections are to be made good for proper functioning of new items. Dismantled / old items are to be handed over to the stores.

No.	DESCRIPTION	UNIT	QTY.	RATE (₹.)	AMOUNT (₹.)
1.	**As per the detailed Bill of Quantities enclosed in 02 (TWO) pages** **ESTIMATED VALUE ……** **(RUPEES TWENTY THREE LAKHS TWENTY TWO THOUSAND SEVEN HUNDRED NINETY SEVEN AND PAISE NINETY THREE ONLY)**	**AS PER DETAILED BILL OF QUANTITIES ENCLOSED**			**23,22,797=93**

TOTAL AMOUNT QUOTED IN FIGURES: Rs. _____

TOTAL AMOUNT QUOTED IN WORDS: Rs. _____

_____ **only.**

Note:
1. Tenderer shall write their quoted offer both in WORDS and FIGURES. The quoted offer in WORDS shall be in CAPITAL / BLOCK letters.
2. If there is discrepancy between the amount mentioned in FIGURES and the amount mentioned in WORDS, the amount as mentioned in WORDS only shall be taken as the quotation of the tenderer.
3. **THE ESTIMATE OF THIS TENDER IS BASED ON THE RINL / VSP APPROVED WAGE RATES, CONSEQUENT TO THE MINIMUM WAGE OF CONTRACT WORKER AS NOTIFIED BY THE REGIONAL LABOUR COMMISSIONER (CENTRAL), HYDERABAD, WHICH IS GIVEN BELOW. IN CASE REVISION IN THE MINIMUM WAGES OF CONTRACT TAKES PLACE, ESCLATION DUE TO THIS SHALL BE PAYABLE TO THE CONTRACT AS PER THE ESCALATION FORMULA INDICATED IN THE SPECIAL CONDITIONS OF CONTRACT :**

	UNSKILLED WORKER	SEMI-SKILLED WORKER	SKILLED WORKER
RINL/VSP APPROVED RATE (IN RUPEES)	**458=50**	**514=25**	**599=40**
MINIMUM WAGES AS NOTIFIED BY THE RLC (CENTRAL), HYDERABAD (IN RUPEES)	**276=00**	**312=00**	**367=00**

Signature of the Tenderer