TENDER DOCUMENT

FOR

Reconditioning of rotor and LP Guide Blade Carrier of Process Refrigeration Compressor drive turbine of Amm-III Plant.

NIT No.: N-III/Mech-5/Cont-1011/1944 DTD-06/11/2017

BVFCL, NAMRUP



BRAHMAPUTRA VALLEY FERTILIZER CORPORATION LIMITED MECHANICAL DEPARTMENT

1.0 MACHINE SPECIFICATION:

i) Process Refrigeration Compressor drive turbine rotor:

Type : V 25.5 condensing turbine

Weight: 750 Kg (Approx.)

Bearing Span Length: 1325 mm

Total length : 1810 mm (approx without coupling)

MOC : 3% Cr Mo
Rated speed : 10810 rpm
Output at coupling : 3483 KW (Rated)

Process Refrigeration Compressor drive turbine LP Guide blade carrier:

Diameter : 620 mm

Width : 290 mm

MOC : 290 mm | The photographs of rotor, rotor blading and Guide blade

carrier are also uploaded for reference only.

2.0 SCOPE OF WORK:

If specifically not mentioned herein after or not mentioned anywhere else, the scope of work shall include but not limited to the following for the job of rotor & LP GBC reconditioning/refurbishment:-

2.1 Reconditioning of PRC Drive Turbine rotor:

- Receipt of Rotor and unloading.
- > Inspection of the Rotor on receipt for any transit damage and taking photographs.
- > Thorough cleaning of the Turbine Rotor with Aluminium Oxide grit blasting as per standard practice after covering journal, thrust and coupling hub area.
- > Run out checking of the rotor and bend removal by stress relieving on the rotor following best engineering practices.
- Carryout the following NDT & inspection as per International standard on the rotors:
 - a) Dye penetration Test.
 - b) Ultrasonic Test.
 - c) Florescent Magnetic Particle checks on all assessable areas.
 - d) NFT of blades and replacement of blades in case of blade failure.
- > Burnishing and polishing of Rotor journals and other areas wherever required.
- Complete rotor refinning.
- > Checking of the rotor for Residual Magnetism and Demagnetization of the complete rotor.
- > Final dimensional inspection of the rotor and submission of detailed report including various tests performed.
- ➤ Low speed balancing followed by High Speed Dynamic Balancing of the rotor at rated rpm as per API 612 standard inside vacuum tunnel under 5 milibar.
- > Third party inspection should be carried out by a reputed agency like M/s Lloyds, Bureau Veritas, TVV etc.
- ➤ Application of anti corrosive coating on the rotor for preservation and packing of the rotors to avoid damage during transit.
- > Dispatch of the material with proper packing following standard engineering practices.

2.1.1 NOTE:

The successful bidder has to carry out NFT in presence of our representative for checking condition of blades of the turbine rotor. If during testing the blades are found damaged the cost of replacement of blades in totality including material cost shall be decided on mutually agreed prices.

2.2 Reconditioning of LP Guide Blade Carrier of PRC Drive Turbine:

- a. Receipt and unloading of Guide blade carrier.
- b. Visual inspection of GBC.
- c. Thorough cleaning of the Guide blade carrier with Aluminium Oxide grit blasting as per standard practice.
- d. Carryout the following NDT & inspection as per International standard on the GBC:
 - i. Dye penetration Test.
 - ii. Ultrasonic Test.
 - iii. Florescent Magnetic Particle checks on all assessable areas.
- e. Final dimensional inspection of the GBC and submission of detailed report including various tests performed.

2.3 Reblading of Bottom half of Guide blade carrier(Last Three Rows):

- a. Removal of old damaged blades & shroud.
- b. Reverse engineering of blades by CMM machine.
- c. Procurement of raw material for blades & shrouds as per sample.
- d. NDT (UT & MPT) inspection of raw material.
- e. Manufacturing of blades & shrouds.
- f. Assembling of blades & shrouds.
- g. Machining of blades and shrouds following standard engineering practices.
- h. Dimensional inspection to be carried out.

2.4 Reblading of Top half of Guide blade carrier(Last Three Rows):

- a. Removal of old damaged blades & shroud.
- b. Reverse engineering of blades by CMM machine.
- c. Procurement of raw material for blades & shrouds as per sample.
- d. NDT (UT & MPT) inspection of raw material.
- e. Manufacturing of blades & shrouds.
- f. Assembling of blades & shrouds.
- g. Machining of blades and shrouds following standard engineering practices.
- h. Dimensional inspection to be carried out.

3.0 SPECIAL TERMS & CONDITIONS:

3.01 CONTRACTOR'S SCOPE:

- a. Loading and unloading of rotor at the works.
- b. Arrangement and deployment of total workforce including supervisory staff and engineers.
- c. Procurement of raw material required to complete the job in totality as per OEM drawing quality of which should be used as per OEM's standard for the entire work.
- d. All the machines and materials required for the job.
- e. All Non-Destructive testing, whatsoever required for the entire scope of work.
- f. Third party inspection should be carried out by a reputed agency like M/s Lloyds, Bureau Veritas, TUV etc.
- g. Furnishing of Inspection details as per Clause No-3.03 of NIT.

3.02 BVFCL'S SCOPE:

Transportation & Insurance: BVFCL shall arrange to & fro transportation of the rotors and insurance. However, careful handling at the party's works shall be The Bidder's responsibility.

3.03 **INSPECTION**:

- The successful bidder shall arrange for stage wise third party inspection for the entire reconditioning job by M/s Lloyds/ Bureau Veritas/ TUV.
- **Submission of Documents**: The successful bidder shall submit the following documents (in duplicate) after completion of work:
 - Dimensional Inspection Report
 - Run Out Report
 - Dynamic Balancing Report (Progressive)
 - Ultrasonic Test Report
 - Liquid Penetration Test Report
 - Magnetic Particle Examination Report
 - Demagnetization Report

3.04 COMPLETION TIME:

The completion time for the job shall be 45 (Forty Five) days from the date of receipt of the material at party's works.

4.0 OTHER TERMS & CONDITIONS

- 4.01 It shall be obligatory on the part of The Bidder to adhere strictly to the time schedule quoted and accepted by us in our order. In case of delay in completion time, unless extension of completion time has been granted by us on application of The Bidder, we may at our option either (1) recover liquidated damage from the party at a sum equal to 0.5 % per week or part thereof of the work order value subject to maximum 10% of the value of the work order or (2) Get the job executed from other agency on account and at the risk & cost of the Bidder or (3) Cancel the contract without prejudice to our rights under (1) & (2) above of the NIT and the date of opening of tenders. It shall also contain EMD.
- 4.02 Subsequent to an order being placed against your quotation, received in response to this, if it is found that the execution of job is not of the right quality or not in accordance with our specifications (required by us) or received in damaged conditions, not satisfactory owing to any reason of which we shall be the sole judge, we shall be entitled to reject the work, cancel the contract and get the job executed from the other sources and recover the loss, if any, form the Bidder reserving to our self the right to forfeit the security deposit, furnished by the Bidder against the contract. The Bidder will make their own arrangement to rectify the rejected work within a fortnight of instruction to do so.
- 4.03 In all cases of disputes, the decision of this company shall be final. Failing this, the matter will be referred to the Arbitration in accordance with the Indian Arbitration and Conciliation ACT 1996 and amendment thereof.

5.0 GENERAL TERMS & CONDITIONS:

5.1 Validity of Contract:

The contract shall remain **valid for a period of 12 (Twelve) months** reckoned from the date of its award.

5.2 Escalation in Rates:

The rates quoted will remain firm till the currency of the contract and will not be subjected to escalation irrespective of any increase whatsoever in labour or material cost etc.

5.3 Earnest Money Deposit:

The Bidder should make a deposit of `74,460.00 (Rupees Seventy Four Thousand four hundred and sixty) only as Earnest Money in the form of an A/c Payee Demand Draft/Bank pay order, drawn on State Bank of India in favour of "Brahmaputra Valley Fertilizer Corporation Ltd., Namrup" payable at Namrup Branch (Branch Code: 0223). Earnest Money Deposit should accompany the tender in a separate envelope without which tender will not be opened and it will be considered as rejected.

The EMD must reach the office of the Chief Engineer (Mechanical), A-III &CPP, BVFCL Namrup within 07 Days of online opening date of the Bids.

NSIC/MSME registered companies shall produce valid copy of registration certificate for exemption of EMD.

5.4 Security Deposit-Cum-Performance/Workmanship Guarantee:

For due and faithful execution and performance of the contract the contractor shall provide the Owner with financial guarantee in the form of a Bank Guarantee, issued by any Nationalized Bank, for sum equivalent to 10% of the total contract value within a period of 30 days of placement of work order. The Bank Guarantee so executed shall be valid till the expiry of defect liability period with provision of claim period of up to 6 months. **No interest shall be paid on E.M.D. and S.D.**

5.5 Period of Liability:

The Bidder shall stand guarantee for the work done for trouble free operation for a period of 18 months from the date of receipt of rotor at site/ 12 months from the date of commissioning. Any damage or defect or other faults that may arise or lie undiscovered at the time of issue of completion certificate, or appear within the defect liability period after virtual completion of the work, occurring, in the opinion of the owner, due to material or workmanship not being in accordance with the contract, shall, upon the directions of the owner in writing and within such reasonable period specified therein, be rectified by the Contractor most expeditiously at his own cost; or, in case of default, BVFCL may get the same rectified/made good by other workmen and deduct expenses from any sums that may be there or at any time thereafter that become due to the Contractor or may recover from his security deposit. BVFCL shall be under no obligation to accept / entertain any claim / demand whatsoever on this behalf. The workmanship guarantee for rectified portion of work shall commence with effect from the date of rectification for a subsequent period of 6 (six) months of the balance period as stated above, whichever is later.

6.0 <u>Terms of Payment</u>:

- 6.1 100% of value of completed work shall be released, after successful completion of the job and raising of invoice by the party in triplicate subject to recovery if any. However, 100% payment is subject to fulfillment of Security Deposit cum Performance/Workmanship Guarantee as in noting at clause no 5.4 of General Terms & Conditions. In case the party does not submit Security Deposit-Cum-Performance/Workmanship Guarantee as stated above 90% value of the completed work will be released. The balance 10% shall be retained as Security Deposit which will be released after successful completion of the guarantee period
- 6.2 All the statutory taxes and duties shall be paid extra, as applicable, to The Bidder / deducted from The Bidder's bills, as the case may be, at usual and prevailing rates. Income Tax however shall be deducted from bills.
- 6.3 GST, if and as applicable, shall be paid at usual and admissible rate on production of copy of valid Service Tax Registration Certificate issued by appropriate Excise Authority.
- 6.4 **Penalty:** In the event that the work is not completed according to the time schedule, the Contractor shall have to pay **Penalty to BVFCL** @ of 0.5 % of the total value of work for delay of every week or part thereof subject to a ceiling of 10 % of the total value of the work.
- 7.0 Force Majeure: The terms and conditions mutually agreed upon with respect to this agreement shall be subject to Force Majeure. Neither the Contractor nor BVFCL shall be considered to be in default in the performance of their obligations contained therein, if such performance is prevented or delayed or restricted or interfered with by reasons of War, Hostilities, Revolution, Civil Commotion, Strike, Epidemic, Accident, Fire, Cyclone, Wind, Flood, Earthquake, Regulation or Ordinance or Requirement of any Government or any Sub-Division thereof, or Authority or Representative of any such Government and / or due to Technical Snag/Reasons, or any other Act whatsoever, whether similar or dissimilar to those enumerated, beyond reasonable control of the parties hereto, or because of any Act of God. The party so affected, upon giving prompt notice to the other party, shall be excused from such performance to the extent of such prevention, delay, restriction or interference for the period it persists, provided that the party so affected shall use its best efforts to avoid or remove such causes of non-performance, if possible, and shall continue performance hereunder with the utmost dispatch whenever such causes are removed. Should one or both parties be prevented from fulfilling their contractual obligations by a state of Force-Majeure lasting continuously for a period of three months, the two parties to the contract shall meet and decide about the future course of action for implementation of the contract.

8.0 Conciliation & Arbitration:

Except otherwise provided in this contract all matters, questions, disputes, differences whatsoever which shall at any time arise between the parties hereto touching the construction, meaning or operation or effect of the contract or out of matters related to the contract or breach thereof, or the respective rights or liabilities of the parties, whether during or after completion of the work or whether before or after termination shall be referred to arbitration in accordance with the ICADR Arbitration Rules, 1996. Under such case, authority to appoint Arbitrator(s) shall be the 'International Centre for Alternative Dispute Resolution'.

The Arbitration proceedings shall be governed by the ICADR Arbitration Rules, 1996.

Both the parties shall continue to fulfill their respective obligations under the contract during the Arbitration proceedings.

- 9.0 The contract shall be governed by and construed in accordance with the Laws of India and provisions of various Labour Laws like Factories Act 1948, Industrial Disputes Act 1947, Contract Labour (Regulation & Abolition) Act 1970, Maternity Act 1961, Workmen's Compensation Act 1923, Payment of Wages Act 1936, Minimum Wages Act 1948, Employee's Provident Funds & Misc. Provisions Act 1952, Payment of Bonus Act 1965, Payment of Gratuity Act 1972 etc. and any other Law / Legislation which may be applicable from time to time (The above Acts are only illustrative and not exhaustive).
- **10.0 Jurisdiction:** Notwithstanding any other court or courts having jurisdiction to try any civil suit arising out of this contract it shall be only the court of competent jurisdiction at Dibrugarh alone (where the contract shall be deemed to have been entered into) to try such suits to the exclusion of all other courts of the country and all causes of action in relation to the contract will therefore be deemed to have arisen within the **Jurisdiction of the Court at Dibrugarh (Assam) only**.
- **11.0** BVFCL is committed to a corruption free environment." All the works contract, services and commitments of BVFCL will be honored without the citizen having to pay any bribe". In case any person demands any bribe, it is the duty of responsible citizen to inform the matter to Vigilance Office, BVFCL, Namrup, Assam. (Email: vigilance@bvfcl.co.in).

For Brahmaputra Valley Fertilizer Corporation Limited, Namrup

(K K Dihider) C.E. (M), A-III & CPP

PROFORMA-5 (SPECIMEN COPY- ONLY FOR REFERENCE)

Ref No.: N-III/Mech-5/Cont-1011/

Price-Bid

Sr.	Description	Amount (`)
No.		(In Figures)
1.0	Reconditioning of PRC Drive Turbine rotor of Amm-III	
	plant.(Inclusive of P&F charges and (excluding cost for	
	replacement of rotor blades)	
2.0	Reconditioning of LP Guide Blade Carrier of PRC Drive Turbine of Amm-III plant. (Inclusive of P&F charges)	
3.0	GST @ 18%	
4.0	Total	

(Rupees
)

Notes:

- 1. The Rates quoted should be inclusive of all Taxes, Duties, Royalties, P&F charges and other Statutory Levies to be payable except GST. Unless specified to the contrary in the bid, all present taxes and statutory levies shall be borne and paid for by the bidder. Payment of the taxes and other statutory levies shall be the responsibility of the bidder and shall not be payable by BVFCL.
- 2. TDS shall be applicable as per Income Tax Rules.
- 3. The Bid shall be evaluated on the overall lowest cost only.

(SIGNATURE OF THE BIDDER)

Name	 	
Date _	 	
Place		

Ref No.: N-III/Mech-5/Cont-1011/

Annexure-II

ELIGIBILITY CRITERIA FOR THE BIDDER

- 1. The bidder should have experience of similar nature work i.e. carrying out refurbishment/reconditioning of the rotor and guide blade carrier of high speed steam turbines of more than 8500 RPM and Power output of 3MW or more in the last seven Years in any of the following industry:
 - "Reputed continuous process fertilizer plants/refineries/petrochemicals under Central PSU/State/JV PSU and private sector"
- 2. The bidder shall furnish documentary evidence in form of Work Order / Contract copies along with satisfactory completion certificates in support of their claim of doing such work by them and successfully completed during the last 7 (Seven) years ending last day of month previous to the one in which applications are invited should be either of the following
 - a. Three similar completed works costing not less than 40% of estimated amount OR
 - b. Two similar completed works costing not less than 50% of estimated amount OR
 - c. One similar completed work costing not less than 80% of estimated amount.
- 3. Average annual financial turnover during the last 3 years, ending 31st March of the previous financial year, should be at least 30% of the estimated cost.

DECLARATION FORM-I

Quotation No.:	Date://
C.E. (Mech.), A-III& CPP M/s. Brahmaputra Valley Fertilizer Corporatio Parbatpur-786623 District- Dibrugarh, Assam.	n Limited, Namrup
Subject: Notice Inviting Tender for 'Reconditioning Refrigeration Compressor drive turbine of A	
the rates quoted in the attached Schedule of Rates and instructions in writing of the Engineer-in-charg M/s. Brahmaputra Valley Fertilizers Corp Limited ar	ration Compressor drive turbine of Amm-III Plant' at and in accordance with the specifications, standards e of. Ind hereby bind myself/ourselves to complete the agree to abide by the conditions of contract and to rdance with applications, workmanship and
In case of acceptance of the Tender by the Brahma bind myself /ourselves to execute the contract as p document, failing which, I / We shall have no object with the Brahmaputra Valley Fertilizers Limited, Na	er the conditions mentioned in the tender tion to the forfeiture of the Earnest Money lodged
	(Signature of The Bidder with Seal)

DECLARATION FORM-II

THE FOLLOWING DECLARATION TO BE SIGNED BY CONTRACTOR

Sr.	DESCRIPTION	YES / NO		
No		(If Yes, give the following details)		
1	If a The Bidder has relations whether by blood or otherwise with any of employees of BVFCL (Owner), the The Bidder must disclose the relation at the time of submission of Tender, failing which, BVFCL shall reserves the right to reject the Tender or rescind the Contract.	Designation of the Employee Employee		
2	P.F. Registration No of the Contractor to be with Documentary proof thereof.	intimated along	P.F. Registration	on Number
3	PAN No. of the Contractor to be intimated a Documentary Proof thereof.	llong with	PAN No	
4	GST Registration No. with Documentary Pro			
5	ESI Registration No. Along with documentary proof thereof. ESI Reg. No.			
6	If the party is registered as Micro/Small/Medium Enterprises as per MSMED Act,2006, the same may be confirmed by the party and submit a photocopy (Self certified) of the registration certificate in support thereof. Otherwise it will be construed that the party is not registered as per MSMED Act, 2006.			
7	The bidder shall submit the name and address of the firm/ company along with its constitution giving status of the same such as sole proprietorship / partnership or limited/private firm etc. Along with its copies duly attested by Notary Public as evidence.			

(Signature of The Bidder with Seal)

Name: _	
Address: _	
_	
Place:	
Date:	

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PROFORMA NO. - 1

INFORMATION REGARDING THE BIDDER

		1
A)		In case of individual
i)	Name of Business	
ii)	Whether his Business is registered	
,		
iii)	Date of commencement of business	
111)	Dute of commencement of business	
iv)	Whether he pays Income-Tax over Rs. 10,000/-	
10)	* *	
D)	per year	T CD 4 1'
B)		In case of Partnership
i)	Name of Partnership	
ii)	Whether the Partnership is registered	
iii)	Date of establishment of firm	
/		
iv)	If each of the partners of the firm pays Income-	
10)	Tax over Rs. 10,000/- a year and if not which of	
	them pays the same	
<i>a</i> =		
C) In	case of Limited Liability Company or Company Limited	by Guarantee
i)	Amount of paid up capital	
ii)	Name of Directors	
iii)	Date of Registration of Company	
•		
iv)	Copies of the last two years' Balance Sheets of	
•	the Company	
D) In	come Tax	
i)	Income Tax Clearance Certificate for previous	
,	years.	

(SIGNATURE OF THE BIDDER)

Name	
Dated_	
Place	

PROFORMA NO. – 2

DETAIL OF EXPERIENCE

The Bidder shall give information of similar works done during the past seven years strictly as per Proforma given below:

Sr. No.	Full particulars of similar work carried out by The Bidder	Value of Contract	Contract Completion time	Actual completion time	Year of completion	Name & Postal Address of Client

Certified that the above information is correct.

	(SIGNATURE OF THE BIDDER
Name	
Date	
Place	

PROFORMA NO. - 3

PRESENT COMMITMENTS

The Bidder shall furnish the details of their present commitments strictly as per this Proforma.

Sr. No.	Name of work	Name& address of Client	Contract Value	Brief description of work	Start date of work as per contract	Percentage of work completed	Expected date of Completion

Certified that the above information is correct.

	(SIGNATURE OF THE BIDDER)
Name _	
Date _	
Place _	

PROFORMA NO. - 4

INFORMATION REGARDING EQUIPMENT WHICH THE BIDDER PROPOSES TO USE FOR THIS WORK:

Sr. No	Description	Quantity	Capacity	Owner

Certified that the above information is correct.

	(SIGNATURE OF THE BIDDER)
Date	
Place	