BHARAT COKING COAL LIMITED

(A Subsidiary of Coal India Limited) Office of the Chief General Manager(MM) Materials Management Department Commercial Block L-III , Koyla Bhawan : Koyla Nagar Dhanbad : 826005 (Fax No- 0326-2230183)

Telegram: KOKINGKOL – DHANBAD

Web site : http:/bccl.cmpdi.co.in

Advertised Open Tender Under jurisdiction of Dhanbad Court only. TENDER NO : PUR/560275/Transformer/08-09/108

DUE DATE & TIME FOR SUBMISSION—	11.01.2010	UPTO	1 PM
DUE DATE & TIME FOR OPENING	11.01.2010	AT	3 PM
COST OF TENDER DOCUMENT – Rs 2000.	.00		

REQUIRED AMOUNT OF EARNEST MONEY – **Rs. 29000.00** (Please see clause no.111 & 13)

C.R.NO.....DATED.....

TENDER ENQUIRY

Document issued to:	If this Tender Document has been downloaded from our website Part-
	III envelope(Clause 9[c] bearing required Bank Draft for the requisite
	Tender Fee must be enclosed along with the tender otherwise their
	offer shall be rejected out rightly without any reference. However, the
	contents of the tender documents available for sale in our office shall
	be deemed as authentic .The responsibility of errors & omissions in
	the downloaded documents will be with tenderer

Dear Sirs,

Sub: Notice Inviting Tender for supply of 500 KVA & 1000 KVA Transformer .

1. Sealed tenders are invited in duplicate only from the proven manufacturers or their exclusively authorised sole selling agents authorised by their manufacturer to offer against this tender for supply of 500 KVA & 1000 KVA Transformer to various Areas of BCCL as per detailed specifications as Annexure – "A".

PROVEN MEANS THOSE MANUFACTURERS OR EXCLUSIVELY AUTHORISED SOLE SELLING AGENTS WHO HAVE SUPPLIED TENDERED ITEM(S) IN PAST TO (a) OEM OR (b) TO THE MINING INDUSTRY AND/OR TO THE OTHER INDUSTRIES(PRIVATE OR GOVERNMENT/PUBLIC SECTOR UNDERTAKING—INDIGENOUS OR GLOBAL) AGAINST REGULAR (FIRM) ORDER(NOT TRIAL ORDER) PLACED BY COMPANY'S HQ. FOR THIS PURPOSE THE FIRM SHOULD SUBMIT AUTHENTICATED COPY OF SUCH PURCHASE ORDERS RECEIVED BY THEM.HOWEVER TRIAL ORDERS PLACED BY BCCL CO.HQ. MAY BE CONSIDERED IF THE FIRM OBTAINS PROVEN STATUS ON PERFORMANCE BASIS AGAINST SUCH TRIAL ORDERS 2. The offers are to be submitted before the closing date and time as mentioned above.

3. Tenderers may be deposited in person by the tenderer in the Tender Box kept at Tender cell, Purchase Department, office of the CGM(MM), Bharat Coking Coal Limited , Commercial Block , Level –III , Koyla Bhawan , Koyla Nagar , Dhanbad or sent by post or courier to the above address . Bharat Coking Coal Limited , however , do not take any responsibility for loss of tender in transit. A tender which has not been received on the due date and before the time of opening of the tender , the same will not be considered. No relaxation in this respect will be entertained.

4. Tenders sent through telegram ,telex ,Fax or E-Mail will not be considered.

5. Tender documents/forms purchased by one firm are not transferable to another firm.

6. The tender document is divided into the following parts:

i) Annexure 'A'	-	Technical specification
ii) Annexure ' B'	-	Commercial terms without price.
iii) Annexure ' C '	-	Check List

7. (a) The offers are to be submitted in three parts. The first part "Part-I i.e. Techno-commercial offer " should contain the detailed Technical and commercial terms of the offer . However, this should not contain the price. The envelope should be sealed superscribed with the tender number and the date of opening and must mark Part I

(b) The second Part "Part-II i.e. Price Bid" should contain the details of price only. The envelope should be sealed superscribed with the tender number and the date of opening and must mark Part II.

(c) "Part – III" [Applicable for those tenderers who will down loaded tender documents from our web site.]

In this case the intending tenderer must enclose the requisite tender fee as Bank Draft from any schedule Bank drawn in favour of "BHARAT COKING COAL LIMITED" payable at Dhanbad in the "Part – III" envelope. The envelope shall be sealed , superscribed with tender number and due date of opening and must mark "Part-III".

All the envelopes containing the tender shall be properly sealed. Envelopes stapled shall not be accepted. The name and address of the bidder must also be indicated on the envelopes. Please note that envelopes stapled shall not be accepted.

All these three sealed envelopes i.e. "Part – I" [Techno-commercial bid], "Part- II" [Price bid] and "Part – III" [Requisite tender fee as indicated in the tender notice] should be kept in a bigger envelope giving details of the tender No. and due date of submission and opening along with the name and address of the bidder.

In absence of "Part-III" envelope offer shall be rejected out rightly without any reference for those tenderers who have down loaded the tender documents from our website.

8. Part - I (Techno commercial Offer) and "Part – III" (Tender fee) will be opened on the due date of tender opening in presence of the authorised representative of the attending bidders NOTE.

a) Tenders not submitted in the above manner will not be accepted.

b) If tender disclose their price in the techno-commercial bid(Part-I), the offer will be re-sealed and will be treated as invalid offer by the Tender opening Committee.

09.The price bids i.e. Part- II of only those tenders whose Part- I is found to be technocommercially acceptable to BCCL will be opened later on .Date and time of opening will suitably be intimated to such bidders whose offers are found techno-commercially acceptable.

10. Bharat Coking Coal Limited reserves the right to accept or reject any or all offers in part or in full without assigning any reason thereof. No dispute of any kind can be raised against this right of the buyer in any court of law or elsewhere.

11. Earnest Money:

- a) An Earnest money of **Rs. 29000.00** in terms of Bank Draft of any schedule Bank drawn in favour of Bharat Coking Coal Limited payable at Dhanbad must accompany the Part I(Techno-commercial offer) otherwise offer shall be considered unresponsive.
- b) If it is accompany the Part-II(Price bid), it will be presumed that tenderer has not deposited the requisite Earnest money and their offer shall be considered unresponsive.

12. Security money – Successful tenderer are required to deposit security money in the form of Bank Draft/Bank Guarantee of any schedule Bank of 10% of the order(value means F.O.R destination price) within 15 days from the date of receipt of order.Bank draft should be drawn in favour of "BHARAT COKING COAL LIMITED" payable at Dhanbad .In case they fail to deposit the same,the supply order shall be cancelled and the shall be processed to order elsewhere and the firm's performance is to be kept recorded for future dealings with them. The security will be refunded to the firm within 30 days of satisfactory execution of the contract(Execution of the contract means successfully completion of supply against the order). For unsatisfactory performance and/or contractual failure the security money shall be forfeited. Please note that security money may be converted in to Performance Bank Guarantee wherever required .Please note that validity of Performance Bank Guarantee shall be as per clause 11 (a) of Commercial terms & conditions .Please confirm the acceptance of this clause clearly.

13. State/Central Govt.Organisation /PSU & Valid DGS&D/NSIC/Ancillary of BCCL registered (for tendered items), firm shall be considered for exemption for submission of EMD/ Security money, if they can submit these documents after duly signed by Notary Public.

14. The bidders must give a declaration that they have not been banned or de-listed by any Government or quasi-Government agencies or PSUs. If a bidder has been banned by any Government or quasi-Government agencies or PSUs, this fact must be clearly stated and it may not necessarily be a cause for disqualifying them. If this declaration is not given, the bid will be rejected as non-responsive.

15. Bharat Coking Coal Limited reserves the right not to make any procurement against this tender without assigning any reasons.

16. Tenders of those tenderers who suo moto offer different prices or change the terms which effects the quoted price of the firm within the validity of the offer shall be treated as invalid offer ab initio and the action against such tenderer as per CIL rules / procedure will be taken.

17. ALL CONTRACTS WILL BE IN ACCORDANCE WITH THE PREVALENT INDIAN LAW AND ALL DISPUTES ARE SUBJECT TO THE JURISDICTION OF DHANBAD COURT ONLY.

IMORTANT NOTE:.

(i). The tenderers are requested to go through all the Annexure and furnish specific replies to each question raised therein.

(ii). Printed terms and conditions of the vendor shall not be considered. Tenderers are requested to submit their offer complete in all respects maintaining serial number of items, terms and conditions as per tender documents along with all supporting documents failing which offer may not be considered.

(iii). Normally no deviation is acceptable to our tender documents.. Terms and Offers which are in deviation are liable for rejection without asking back reference to the tenderers. Offers as asked must be submitted complete in all respects.

(iv). Self attested copies of orders received from subsidiaries of CIL for the quoted items should be submitted along with the quotation in the Part-I(Techno-commercial offer). List of past supplies with the details of order reference and the performance report if any should be furnished along with the offer

(v). The complete offer should be typed in the letter head of the tender(Hand written quotation will be summarily rejected). If firm's letter heads are not sufficient to accommodate technical and

pricing details preferably bigger papers may be used, such sheets alongwith other pages of the offer should be signed and stamped by company's authorised signatory.

(vi). All pages of tender documents should be signed including all enclosures with the tenders except printed leaflets/catalogues and have company's seal. This is must otherwise offer shall be rejected

(vii). Erased and over written quotations will be summarily rejected unless corrections are authenticated with the tenderer's signature.

(viii). BCCL reserves the right to increase or decrease the tendered quantity against any/all the items of the tender

(ix). The tenderer must submit separate sheet in Part 'I' (Techno-commercial offer) indicating any deviation in their offer from the Technical and Commercial terms specified/required.

(x).offer of those tenderers will not be considered commercially acceptable who did not successfully execute previous order placed on them by BCCL despite giving commercial notice and against whom penal action have been initiated for breach of contract.

(xi). In case a firm is proven for a sub-assly of any particular Equipment, it will be considered proven for components of that particular sub-assly of the Equipment only.

(xii) Purchase Preference Policy as per Govt.of India's office memorandum no. DPE 13(12)/2003-Fin.Vol II dt.18th July 2005 valid upto 31/03/2008 is applicable for any Govt.Dept/PSU tender. It is applicable to contracts of value of 5.0 crore and above but not exceeds 100.00 crore.

(xiii). As per Central Vigilance Commission (CVC) guide lines, no post tender negotiations may be held except in case of Proprietary Purchase or for items with limited source of supplies (negotiation in such case may be held only with L-1 / preferred L-1 vendor)

(xiv). If L-1 tenderer do not have adequate capacity to supply full quantity tendered, the uncovered quantity order may be distributed to L-2 tenderer at L-1 rate. Not withstanding anything said above, BCCL reserves the right to follow any guideline or instruction received from the Government or any statutory bodies from time to time.

Encl: As above

Yours faithfully

For & on behalf of Bharat Coking Coal Limited .

COMMERCIAL TERMS:-

1. Part-I i.e. TECHNO COMMERCIAL OFFER should contain the following(but not the price of any item):-

i) Name and address of the original Manufacturer along with full details of the contacts persons, Telephone No, Fax No. , E. Mail address etc.

ii)Details of order received giving the name of the buyer, their address and country, date of order and number/quantity item ordered and supplied. Specific details should be given regarding the item supplied with full address of the user, so that the same can be verified if felt necessary.

iii)Details of collaborations, if any.

iv)Details of After Sales Service to be provided, namely address of service depots, if any, strength of after sales service personnel and their qualifications and backgrounds.

v) Details of Training offered, if any.

vi) Details of quality control measures/stage inspections carried out .Accreditation of any approved std. quality control institute or organization may be indicated certifying the quality system of the bidder.

vii)Details regarding location of the works. The purchaser reserves the right to inspect the works of the bidder . What are the facilities they will provide to carry out pre despatch inspection in stages of manufacturing process , if buyer wish to do so.

viii) A statement certifying that the bidder accepts all the commercial terms and conditions of Bharat Coking Coal Limited given in this bid documents without any reservation what so ever.

2. (A) PART II i.e. PRICE BID should contain the following:-

i) Rate (Prices) must be quoted FIRM & FOR Destination basis with the following break up.

a)Ex-Works Price

b)Excise duty if applicable(It will be payable extra on Ex-works price basis) c)Sales Tax(It will be payable extra as applicable)

d)Freight ,Insurance ,Packing & Forwarding charges on lump-sum basis.

NOTE: - 1. Please confirm in the technical bid Part-I that their rate is not inclusive of sales tax otherwise their offer may be ignored. However if their rate is inclusive of Ex-duty they must indicate the applicable rate of Excise duty in the technical bid i.e. Part-I

2. The rate must be indicated both in figure and words. If there is difference between both, the amount appearing in words shall be taken for consideration.

- i) In case of direct import by us(BCCL), price will be on F.O.R. delivery Port basis only. The Price must be on FIRM basis.
- ii) In case of Imported stores and prices are in Indian rupees on FOR destination basis, only applicable sales tax and statutory local levies(if any) will be payable extra. The price must be on FIRM basis.
- iii) Conditional discount including quantity discount will not be considered for comparative purpose. Cash discount or Prompt payment discount will also be treated in the same manner. However only unconditional discount will be taken into account for comparative evaluation to ascertain the competitiveness of the tender. In case of

F.O.B price all discount attracts custom duty etc. except trade discount.

2 (B) – Detail evaluation of Financial bids.

2 (B) (a) In spite of mentioning that offers should be submitted by the tenderers on FOR destination basis as per clause 2(A)(i) above , in case a tenderer does not specify the basis of price or quoted on ex-works or FOR despatching station basis , the price will be loaded to arrive at the F.O.R. destination price on the following manner.

Approximate distance of	Percentage FOR	Packing and	Transit
dispatching Station from	dispatching station price	Forwarding	Insurance
Consignee's end.	regarding Freight.	Charges	Charge
Above 2001 Km	5%	2%	1/2%
1501Km - 2000 Km	4%	2%	1/2%
1001 Km -1500 Km	3%	2%	1/2%
501 Km – 1000 Km	2%	2%	1/2%
Below 500 Km	1%	2%	1/2%

2 (B) (b) In case of Imports, the tenderers are required to quote on FOB delivery port basis. The total price will be estimated in the following manner to arrive at the CIF price & landed price of the import offers.

Sl.no	Description	Imported from USA	Imported from
		,Canada and Japan	European and other
			countries.
1	Freight & Insurance	12% of FOB value	10% of FOB value
2	Insurances Charges	1/2% of FOB value	1/2% of FOB value
3	Custom Duty	As applicable	As applicable
4	Port handling and clearance Charges , Inland transportation and other miscellaneous	5% of FOB value	5% of FOB value
	charges		

To arrive the FOR destination Price in Indian Rupees, the exchange rate published in National Newspaper applicable on the date of opening of Price Bids will be taken. The applicable rate will be "Selling BC Rate".

- 3. VALIDITY:- The offer must be valid for acceptance for a period of 6(Six) months from the date of opening tender. Offers will not be permitted to be withdrawn during this period.
- 4. ULTIMATE CONSIGNEE:- The materials may be consigned to any of the depot of BCCL.
- 5. PRICE VARIATION: I) Only FIRM price shall be quoted .No price variation will be allowed during the pendency of the contract excepting for price fall clause.
- 6. PAYMENT TERM;-

a) For indigenous supplies.

100% within 30 days of receipt and acceptance of the materials by the consignee or from the date of receipt of Bill, whichever is later by the consignee.b) For imported supplies if Price is on FOB basis.

In case of imported items where the price is on F.O.B. value 90% will be paid against letter of credit. Balance 10% will be paid after receipt and acceptance of materials. Agency commission will be paid in Indian Rupee .Clearly indicate the quantum of Agency Commission included in the F.O.B Price. 7. Either the Indian Agent on behalf of the foreign principal or the foreign principal may directly bid in a tender but not both.

If an agent participates in a tender on behalf of one manufacturer, he should not quote on behalf of another manufacturer along with the first manufacturer for the same item.

8. In case of indigenous supplies, Tenderers are required to furnish the following details/information in the techno-commercial bid Part-I for transferring the Money to the supplier's account through e-banking while making payment

- a. Name of the Bank.
- b. Name of the Branch with complete address.
- c. Party's Account Style.
- d. Party's nature of Account.
- e. Party's Account Number.

9..DELIVERY:-

i) Required delivery schedule- Please specify your earliest delivery schedule .

Sl.no	Item	Delivery Schedule

ii) The bidder should be in a position to supply in specific delivery period at least 25% of the total tendered quantity, otherwise offer shall be considered unresponsive.

iii) The delivery schedule quoted in the offer shall be firm and final. Delivery will be counted from the date of receipt of the order. Failure to supply the material in time may attract penalty as per clause No. 10

10.PENALTY FOR FAILURE TO SUPPLY IN TIME:

- As per Appendix -I

11. (a) GUARANTEE/WARRANTY/PERFORMANCE BANK GUARANTEE - As per Annexure –A (Technical Specification)

12. PACKING FOR TRANSIT.

The bidder should confirm provision of proper packing of the goods to be shipped by them if order is placed on them as is required to prevent their damage or deterioration during transit to their final destination. The packing shall be sufficient to withstand, without limitation, rough handling during transit. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods final destination and absence of heavy handling facilities at all the points in transit. The packing, marking and documentation within and outside the package shall comply strictly with such special requirement as shall be expressly provided for in the order.

13. QUALITY CONTROL MEASURE

The bidder shall furnish details of quality control measures being adopted by him, including any International / Indian standard being followed.

- 14. PRICE FALL CLAUSE:
- As per Appendix -II

15. FORCE MAJEURE CLAUSE

If the execution of the contract/supply order is delayed beyond the period stipulated in the contract / supply order as a result of out-break of hostilities, declaration of an embargo / curfew or blockade or fire, flood, acts of nature or any other contingency beyond the supplier's control due to act of God then BCCL may allow such additional time by extending the delivery period, as it considers to be justified by the circumstances of the case and its decision shall be final. If and when additional time is granted by BCCL the contract/supply order shall be read and understood as if it had contained from its inception the delivery date as extended. Further this clause state that:

a) The successful bidder will , in the event of his having to resort to this clause by a registered letter duly certified by the local Chamber of Commerce or statutory authority , the beginning and end of the causes of the delay , within fifteen days of the occurrence and cessation of such Force Majeure Conditions. In the event of delay lasting out of Force Majeure , BCCL will reserve the right to cancel the contract and provisions governing termination of contract , as stated in the bid documents will apply.

b) For delays arising out of Force Majeure , the bidder will not claim extension in completion date for a period exceeding the period of delay attributable to the causes of Force Majeure and neither BCCL nor the bidder shall be liable to pay extra costs provided it is mutually established that Force Majeure Conditions did actually exists.

c) If any of the force majeure conditions exists in the place of operation of the bidder even at the time of submission of bid, he will categorically specify them in his bid and state whether they have been taken into consideration in their quotations.

16. INSPECTION & TESTS.

i)The purchaser of its authorized representative shall have the right to inspect and/or to test the goods to confirm their conformity to the contract. The purchaser shall notify the supplier in writing of the identity of any representative retained for these purposes.

ii) If the inspections and tests is conducted on the premises of the supplier or its subcontractor(s) at point of delivery and/or at the goods final destination when conducted on the premises of the supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the purchaser.

iii) Should any inspected or tested Goods fail to conform to the specifications, the purchaser may reject them and the supplier shall either replace the rejected goods and make all alternatives necessary to meet specification requirements free of cost to the Purchaser.

iv) The materials will be inspected on arrival at site by the consignee, which will be considered as final. This shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the Purchaser or its representative's i.e. third party prior to the dispatch of the Goods.

v) Nothing in these documents shall in any way release the supplier from any warranty or other obligations under this contract.

For Chief General Manager(MM)

APPENDIX-I

The time and date of delivery of stores stipulated in Purchase order shall be deemed to be of the essence of the contract and delivery of the stores must be completed by the date specified . No materials should be supplied beyond the specified delivery period, unless specific approval has been obtained from the purchaser.

In the event of failure to delivery or dispatch the stores within the stipulated date/ period in accordance with the samples and/or specification mentioned is the supply order, and in the event of breach of any terms and conditions mentioned in the supply order. Bharat Coking Coal Limited reserves the right:

a)To recover from successful tenderer, as agreed liquidated damages, a sum not less than 0.5% (half percentage) of the price of the stores which successful tenderer has not been able to supply (for this purpose part of a unit supplied will not be considered) as aforesaid for each week or part of a week during which the delivery of such stores may be in arrears limited to 10%. Where felt necessary the limit of 10% can be increased to 15% at the discretion of Head of the Materials Management Division

b) To purchase elsewhere, after due notice to the successful tenderer on the account and at the risk of the defaulting supplier the stores not supplied or others of a similar description without cancelling the supply order in respect of consignment not yet due for supply or

c) To cancel the supply order or a portion thereof, and if so desired to purchase the store at the risk and cost of the defaulting supplier and also

d) To extend the period of delivery with or without penalty as may be considered fit and proper. The penalty, if imposed shall not be more than the agreed liquidated damages referred to in clause (a) above.

e) To encash any Bank guarantee which is available for recovery of the penalty or

f) To forfeit the security deposit full or in part.

g) Whenever under the contract a sum of money is recoverable from and payable by the supplier, BCCL shall be entitled to recover such sum by appropriating, in part or whole by deducting any sum or which at any time thereafter may be due to the successful tenderer in this or any other contract with Bharat Coking Coal Ltd. or any subsidiary of Coal India Ltd. Should this sum be not sufficient to cover the full amount recoverable, the successful tenderer shall pay BCCL on demand the remaining amount. The supplier shall not be entitled to any gain under this clause.

The supplier must confirm the acceptance of this Penalty clause which will not be altered.

PRICE FALL CLAUSE.

APPENDIX-II

i)The prices charged for the stores supplied under the contract by the supplier shall in no event exceed the lowest price at which the supplier sells the stores of identical description to any other organization till validity of the contract.

ii) If at any time during the said period the supplier reduces the sale price of such stores or sells such stores to any other organization at a price lower than the price chargeable under this contract, the supplier shall forthwith notify such reduction or sale to the consignee concerned under intimation to CGM(MM),Bharat Coking Coal Limited , Commercial Block , Level –III , Koyla Bhawan , Koyla Nagar , Dhanbad and the price payable under the contract for the stores supplied after the date of coming into force of such reduction or sale, shall stand correspondingly reduced. The above stipulated will not , however apply to exports by the supplier.

The bidder should confirm their acceptance of the above clause.

LETTER OF PERFORMANCE GUARANTEE.

APPENDIX-III

It has been agreed that hundred percentage(100%) payment of the value of the equipment will be made to the seller in the terms of the said Contract on the seller furnishing to the Purchaser a Bank Guarantee for the sum of ------ equivalent to 10 % of the value of each equipment and accessories dispatched by the seller as security for the due and faithful performance of the terms of the said contract and against any loss or damage caused to or would be caused to or suffered by the purchaser by reason of any of the terms or conditions contained in the said contract.

The----- Bank having its office at ----- has at the request of seller agreed to give the guarantee herein after contained.

2. We,------ Bank Ltd.,do hereby undertake to pay the amounts due and payable under this guarantee without any demur merely on a demand from the purchaser stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the purchaser by reason of any breach by the said seller of any of the terms or conditions contained in the said contract or by reason of the seller's failure to perform the said contract. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. We shall not withhold the payment on the ground that the seller has disputed its liability to pay or has disputed the quantum of the amount or that any arbitration proceeding or legal proceeding is pending between purchase and the seller regarding the claim. However , our liability under this guarantee shall be restricted to an amount not exceeding -------

3. We,----- Bank Ltd., further agree that the guarantee herein contained shall come into force from the date hereof and shall remain in full force and

effect during the period that would be taken for the performance of the said contract and that it shall continue to be enforceable till all the dues of the purchase under or by virtue of the said contract have been fully paid and its claim satisfied or purchase certified that the terms and conditions of the said contract have been fully and properly carried out by the said seller and accordingly discharged the guarantee .Unless a demand or claim under this guarantee is made on us in writing on or before the ------(date to be given---------months from the date of Bank Guarantee) we shall be discharged from all

liability under this guarantee thereafter.

4. We., Bank Ltd. further agree with the purchaser, that the purchaser, shall have the fullest liberty without our consent and without affecting in any manner no obligations hereunder to vary any of the terms and conditions of the said contract or to extend time of performance by the said seller(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the purchaser, against the said seller and to forbear or enforce any of the terms and conditions relating to the said contract and we shall not be relived from our liability by reason or any such variation or extension being granted to the said seller or for any forbearance act or omission on the part of the purchaser, or any indulgence by the purchaser to the said seller by any such matter or thing whatsoever which under the law relating to sureties would be for this provision have effect of an relieving us. The Bank further agrees that in case this guarantee is required for a longer period and it is not extended by the bank beyond the period specified above, the bank shall pay to this purchaser the said sum of ------ or such lesser sum as may than be due the purchaser and as the purchaser may demand. 5. We ,----- Bank Ltd. lastly undertake not to revoke this guarantee during its currency except with the previous consent of the purchaser, in writing. 6. The Bank has under its constitution power to give this guarantee and Mr.---------Manager, who has signed it on behalf of the Bank has authority to do so. 7. This Bank Guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.

Date-----20

For ----- Bank Limited

Signature of the authorised person for and on behalf of the Bank

ANNEXURE- "C"

CHECK-LIST

(To be filled by the Tenderer duly signed and stamped)

1. Whether the tenderer is a Manufacturer	Yes/No
2. Whether the tenderer is a exclusively authorized marketing outlet of a manufacturer	Yes/No
3. If the reply against(2) above is yes, then indicate name & full address of the Principal.	
4. In case of (2) above whether the Principals Authorisation as Exclusive Authorised Marketing Outlet is enclosed with the offer	s Yes/No
5. Acceptance of 6 months offer's validity period as per clause No.3 of Annexure B of NIT	Yes/No
6. Whether quoted prices are FIRM/VARIABLE as per clause No.5of Annexure'B' of NIT	Yes/No
7 Whether Price quoted is on FOR destination basis as per NIT	Yes/No
8 Whether Payment terms as per clause No.6 of Annexure	
'B' of NIT accepted	Yes/No
9. Whether Liquidated damages & Risk purchase clause as per clause No.10 of Annexure'C' of NIT accepted	Yes/No
10.Whether acceptance of Price fall clause as per clause 15 of Annexure'C' of NIT accepted	Yes/No
11. Whether banned or delisted by any Govt or Quasi Govt Agency/PSU	Yes/No
NOTE: NON -ACCEPTANCE OF ANY OF THE TERMS A	ND CONDITI

NOTE: NON -ACCEPTANCE OF ANY OF THE TERMS AND CONDITIONS MAY LEAD TO REJECTION OF OFFER/THE OFFER MAY BE TREATED AS UN-RESPONSIVE.

> SIGNATURE OF THE TENDERER WITH SEAL & STAMP

SPECIFICATION OF POWER TRANSFORMER FROM 250 KVA TO 3000 KVA

This specification broadly covers design , manufacture , supply and other requirements of power transformers to be used for power supply to coal mines .This shall meat all the technical requirements of IS 2026 & other relevant standards .

The transformer shall be of proven design for giving satisfactory and reliable performance in heavily coal dust laden atmosphere unit ambient temperature of 45°C and other service condition prevalent in coalfield areas of BCCL.

The power transformer shall be of indoor type, vector group DY11, naturally oil cooled, copper wound of suitable class of insulation and shall be suitable for 3 phase, 50 HZ, ac power supply system. Continuous operated at rated KVA within $\pm 10\%$ variation of voltage. Temp. rise limited to the following values :

<u>Cooling</u>	Oil	Winding

ONAN 45°C 55°C

Mechanical features

- a) The transformer shall withstand the electro-dynamic stress due to thermal short circuit of the LV side assuming the HV side fed from an infinite bus. All leads and windings in cores shall be properly supported, clamped and tightened after vacuum drying to ensure the short circuit withstand ratings. The short circuit withstand duration shall be minimum 2 sec.
- b) The Transformer shall be so designed as to minimize any undue noise and vibration .

Constructional details

Core

- a) The transformer core shall be made of high grade non- ageing grain oriented cold rolled steel sheets of low hysterisis loss and high permeability. The core structure shall be securely grounded to prevent electrostatic potential. Lifting eyes and lugs shall be provided on the limbs and coils assembly. Preferably no bolt shall be used in the cores. Clamping shall be done externally to the limb.
- b) The design of the magnetic circuit shall be such as to avoid static discharges, development of short circuit paths within itself or to the earthed clamping structure and the production of flux component at right angles to plane of lamination which may cause local heating.
- c) Core and windings shall be capable of withstanding shocks during transport, installation & service and adequate provision shall be made to prevent movement of core & winding relative to tank during these conditions.
- **d**) All steel sections used for supporting the core shall be thoroughly sand blasted after cutting , drilling and welding .

Tanks

a) Tanks shall be of welded construction and fabricated from boiler steel plates of adequate thickness . The weld procedure and performance shall be in line with ASME BPV –IX.All seams and joints those are not

required to be opened at site shall be factory welded and wherever possible shall be double welded.

- b) Tanks stiffness shall be provided for general rigidity and these shall be designed to prevent retention of water.
- c) The tanks shall be designed to withstand Mechanical shocks during transportation, Vacuum filling of oil & short circuit force.
- d) Adequate space shall be provided at the bottom of the tank for settlement of sediments .
- e) Suitable guides shall be provided in the tank for positioning the core & coil assembly.

f)The tanks shall be suitable for movement in both direction during shipment & each tanks shall be provided with Lifting lugs suitable for lifting the complete transformer and a minimum of four jacking pads.

Tank cover

- a) The tank cover shall be sloped to prevent retention of rain water and shall not distort when lifted .
- **b**) At least two adequately sized inspection covers one at each end of the tank shall be provided for easy access to bushing and earth connection . The inspection covers shall have suitable lifting arrangement .
- c) The tank covers shall be fitted with thermometer pockets . The thermometer pocket shall be fitted with a captive screwed top to prevent ingress of water .

Mounting arrangement

The transformers shall be provided with two nos. bi- directional skids and pulling eyes integral with tank body for fixing the transformer tank on foundation.

Conservator tank

- a) The conservator tank shall have adequate capacity to accommodate oil preservation system and volumetric expansion of the total cold oil volume in transformer and radiators for a change in temperature from minimum ambient air temperature of 5°C to 110°C.
- b) The conservator shall be bolted into position so that it can be removed for cleaning purpose.
- c) The conservator tank, shall be fitted with a silica gel filter breather.
- d) The conservator of all transformers below 1000 KVA shall be fitted with plain oil level gauge with two independent low level electrically insulated alarm contacts. The oil level at 30°C shall be marked on the gauge.

The conservator of all transformer of 1000 KVA and above shall be provided with magnetic oil level gauge with two independent low level electrically insulated alarm and trip contacts. The oil level at 30°C shall be marked on the gauge.

Explosion vent

- a) The transformers shall be provided with the single diaphragm type of explosion vent with air release device .
- b) An equalizer pipe shall be connected to explosion vent from the conservator.

Bchholtz Relay A double float type buchholtz relay confirming to IS 3637 shall be provided . All gas evolved in the transformer shall be collected in this relay . The relay shall be provided with a test coke suitable for a flexible pipe connection for checking its operation . A copper tube shall be connected from the gas collector to a

valve located about 1200 mm above ground level to facilitate sampling with the transformer in the service . The device shall be provided with two potential free contacts , one for alarm on gas accumulation and the other for tripping on rise of pressure.

Temperature indicator

a) Oil temperature indicator (OTI)

The transformers shall be provided with a 150 mm dial type thermometer for top oil temperature indication. The thermometer shall have adjustable, potential free alarm and trip contacts, maximum reading pointer and resetting device and shall be mounted in the marshalling box (1000 KVA and above) or on tank cover (below 1000 KVA). A temperature sensing element located in a pocket in the top oil shall be furnished. This shall be connected to the OTI by means of capacity tubing. Accuracy class of OTI shall be 2° C or better. The OTI shall have full scale deflection of at least 240° C and shall have linear graduation to read every 2° C.

b) Winding temperature indicator (WTI)

A device for measuring the hot spot temperature of the winding shall be provided on all transformer 1000 KVA and above. Accuracy class of WTI shall be $\pm 2^{\circ}$ C or better. It shall comprise the following :

- Temperature sensing element
- Image coil and bushing CT
- Auxiliary CT, if required to match the image coil
- 150 mm local indicating instrument with max. reading pointer mounted in marshalling box. It shall have two adjustable potential free contacts, one for winding temp. high alarm and one for trip, in addition to the contacts required for control of cooling equipment.
- Automatic temperature compensation
- All contacts shall be adjustable on a scale and suitable for connection in 240V circuit. These shall be accessible on removal of the cover. The WTI shall have a full scale deflection of at least 240° C and shall
 - have linear graduation to read every 2° C.

Winding

- The conductors shall be of electrolytic grade copper free from scales & burns.
- All winding shall be fully insulated .
- Coil assembly and insulation spacers shall be so arranged as to ensure free circulation of oil and to reduce the hot spot of winding.
- All bus bars and leads shall be adequately supported in insulated cleats or frames shall be effectively locked.

Insulation materials

• Class "A" insulating materials specified in IS 1271 or latest version shall be used . Wood insulation , where used , shall be well seasoned and treated **.Insulating oil :** The new insulating oil shall confirm to IS 335 . No inhibitors shall be used in the oil.

The manufacturer shall dispatch the transformer filled with oil . Ten percent extra oil shall be supplied for topping up , in non returnable sealed containers suitable for outdoor storage.

Earthing Terminals

Two earthing terminals suitable for connecting 50 x 8 mm mild steel flat shall be provided at position close to the two diagonally opposite bottom corners of tank . These grounding terminals suitable for bolted connection . Two earthing terminals shall also be provided on marshalling box and any other equipment mounted separately

Cable boxes and disconnecting chambers

Cable boxes of suitable sizes shall be provided to accommodate cable termination. Cable boxes shall have terminals connectors of adequate size and bolt holes to receive cable lugs. Cable boxes shall have degree of protection IP-52 as per IS : 2147.Disconnecting chamber will be as per standard norms & practice.

Off circuit Tap change switch

The tap change switch shall be three phase , hand operated , for simultaneous switching of similar taps on the three phases by operating an extra handle .Arrangement shall be made for securing and pad locking the tap chamber in each of the working position . An indicating device shall be provided to show tap in use.

- **Radiators :** The radiators shall be detachable type , mounted on the tank . Each radiator shall be provided with the following :
 - a) A drain valve at the bottom
 - **b**) An air release plug at the top
 - c) Shut off valve
- **Marshalling box** : A sheet steel weather, vermin and dust proof marshalling box shall be provided with each transformer of 1000 KVA and above to accommodate
 - Temperature indicators
 - Terminal blocks for incoming & outgoing cables

The marshalling box shall be supplied with space heater and cubical lighting with ON/OFF switches and associated fuses.

Fittings : The following fittings shall be provided with all the transformers :

- 1. Rating and diagram plate
- 2. Terminal marking plate
- 3. Two earthing terminals
- 4. Lifting lugs
- 5. Jacking lugs
- 6. Drain valve with plug of 50mm size
- 7. Dehydrating breather
- 8. Buchholtz relay with alarm and trip contacts with one shut off valve on 50mm conservator side
- 9. Plain oil level indicator
- 10. Magnetic oil level indicator for 1000 KVA and above

11.Off load tap changing switch
12.Oil filling hole with cover
13.Conservator
14. OTI
15 WTI for 1000 KVA and above
16. Explosion vent with air release device
17.Skids and pulling eyes on both sides
18. Rollers
19.Filter valve
20. Inspection cover

TESTS

The manufacturer shall carry out all routine standard tests in accordance with IS : 2026 on each transformer . The manufacturer shall submit copies of type test in accordance with IS :2026 at CPRI for similar or above than similar rating during last 5 years .

TECHNICAL DATA SHEET OF TRANSFORMERS FROM 250 KVA TO 3000 KVA

Ľ	KOM 250 KVA 10 5000 KVA
1. Rated capacit	zy : 1000 KVA
2 Quantity -	1no
3 Type	: Core type oil immersed
4 No. of phases	: 3
5 Frequency	: 50 HZ +3%,- 5%
6 Location	: Indoor
7 Type of cooling	: ONAN
8 Type of oil	: Mineral oil
9. Rated Voltage –	
HV / LV Winding	: 6.6 /0.55-0.44 KV (±10%)

10. Impedance voltage at rated current $:5\% \pm 10\%$ up to 630 KVA

6.5%± 10% from750 to 150	0 KVA
--------------------------	-------

7%± 10% from2000 to 3000 KVA

11. Tap changer type	: Off circuit
12. Tapping	: ±2.5%,±5%,±7.5%,0
13. Temp. rise (over ambient) in o	$pil: 45^{\circ}C$
14 Temp. rise (over ambient) in V	Vinding : 55°C
15. Earthing of neutral terminals	: Required for LV winding
16. Method of system earthing	: Star – solid (LV winding)

TECHNICAL PARTICULARS TO BE SUPPLIED BY THE BIDDER (For all rating transformer separately)

A) <u>GENERAL</u>

- a) Name of manufacturer :
- b) Service
- c) Rating
- Rated KVA :KVA

Rated voltage of HV : KV Rated voltage of LV : KV Temperature rise in oil :°C Temperature rise in winding :°C Rated frequency : d) Number of phases : e) Connection HV, LV, Vector group f) Tapping :	
g)No load loss at rated voltage & frequency : KW	
h) Load loss at rated current at 75°C : KW	D
i)Impedance at rated current & frequency at 75°C :	
5/ 1 5	Percent
k)Efficiency at 75°C at unity p.f. : At full load	: Percent
At 3/4 full load	: Percent
At 1/2 full load	: Percent
l) Regulation at full load at 75°C	. I cicciit
At unity p.f.	: Percent
At 0.8 p.f. lagging	: Percent
m) No load current at rated voltage & frequency	: Percent
n) Approximate weights :	
Core & winding	: kg
Tank & fitting	: kg
Oil	: kg
Total weight	: kg
o) Approx quantity of oil	: Ltr.
p) Approx overall dimensions :	
Length	: mm
Breadth	: mm
Height	: mm
q) Terminal arrangement :HV & LV	

r) Reference standard ;

B) Special

1) Approximate maximum flux density at rated voltage & frequency : CGS.Line/cm²

2) Efficiency at 75°C at 0.8 p.f. lagging At full load

_/ i i i i i i i i i i i i i i i i	
At full load	: Percent
At 3/4 full load	: Percent
At 1/2 full load	: Percent
3) Load at which maximum. Efficiency occurs	: Percent full load
4) Maximum efficiency	: Percent
5) Impulse level	
HV	
LV	
6) No load loss at 110% rated voltage & frequency	: KW

7) No load current at 110% rated voltage & frequency : Percent

8) Type of winding :

HV LV 9) Insulating materials : Turn insulation HV Turn insulation LV Insulation core to LV Insulation HV to LV 10) Clearances : Minimum clearance between phases a) In oil : mm b) Out of oil : mm Minimum clearance HV to earth in oil : mm Minimum clearance – HV to tank in oil : mm 11) Details of tank : Approx. thickness of sides - do bottom : mm - do cover : mm - do tube radiators : mm 12) Minimum clearance height for : mm lifting core and windings from tank 13) Shipping details : Parts detached for transport Approx. wt. of heaviest package : Kg Approx. dimension of largest package(Lx B x H) : mm (C) Off-load tap changer • Make and type Rated voltage and current •

- Step voltage & no. of steps
- Locking arrangement
- Position indication

SPECIFICATION OF POWER TRANSFORMER FROM 250 KVA TO 3000 KVA

This specification broadly covers design , manufacture , supply and other requirements of power transformers to be used for power supply to coal mines .This shall meet all the technical requirements of IS 2026 & other relevant standards .

The transformer shall be of proven design for giving satisfactory and reliable performance in heavily coal dust laden atmosphere unit ambient temperature of 45°C and other service condition prevalent in coalfield areas of BCCL.

The power transformer shall be of Outdoor type , vector group DY11 , naturally oil cooled , copper wound of suitable class of insulation and shall be suitable for 3 phase , 50 HZ , ac power supply system .Continuous operated at rated KVA within \pm 10% variation of voltage .Temp. rise limited to the following values :

Cooling	Oil	Winding

ONAN 45°C 55°C

Mechanical features

- c) The transformer shall withstand the electro-dynamic stress due to thermal short circuit of the LV side assuming the HV side fed from an infinite bus. All leads and windings in cores shall be properly supported, clamped and tightened after vacuum drying to ensure the short circuit withstand ratings. The short circuit withstand duration shall be minimum 2 sec.
- d) The Transformer shall be so designed as to minimize any undue noise and vibration .

Constructional details

Core

- e) The transformer core shall be made of high grade non- ageing grain oriented cold rolled steel sheets of low hysterisis loss and high permeability. The core structure shall be securely grounded to prevent electrostatic potential. Lifting eyes and lugs shall be provided on the limbs and coils assembly. Preferably no bolt shall be used in the cores. Clamping shall be done externally to the limb.
- f) The design of the magnetic circuit shall be such as to avoid static discharges, development of short circuit paths within itself or to the earthed clamping structure and the production of flux component at right angles to plane of lamination which may cause local heating.
- **g**) Core and windings shall be capable of withstanding shocks during transport, installation & service and adequate provision shall be made to prevent movement of core & winding relative to tank during these conditions.
- **h**) All steel sections used for supporting the core shall be thoroughly sand blasted after cutting , drilling and welding .

Tanks

b) Tanks shall be of welded construction and fabricated from boiler steel plates of adequate thickness . The weld procedure and performance shall be in line with ASME BPV –IX.All seams and joints those are not required to be opened at site shall be factory welded and wherever possible shall be double welded.

- b) Tanks stiffness shall be provided for general rigidity and these shall be designed to prevent retention of water.
- c) The tanks shall be designed to withstand Mechanical shocks during transportation, Vacuum filling of oil & short circuit force.
- **d**) Adequate space shall be provided at the bottom of the tank for settlement of sediments .
- e) Suitable guides shall be provided in the tank for positioning the core & coil assembly.
- **f**) The tanks shall be suitable for movement in both direction during shipment & each tanks shall be provided with Lifting lugs suitable for lifting the complete transformer and a minimum of four jacking pads.

Tank cover

- **d**) The tank cover shall be sloped to prevent retention of rain water and shall not distort when lifted .
- e) At least two adequately sized inspection covers one at each end of the tank shall be provided for easy access to bushing and earth connection. The inspection covers shall have suitable lifting arrangement.
- **f**) The tank covers shall be fitted with thermometer pockets . The thermometer pocket shall be fitted with a captive screwed top to prevent ingress of water .

Mounting arrangement

The transformers shall be provided with two nos. bi- directional skids and pulling eyes integral with tank body for fixing the transformer tank on foundation.

Conservator tank

- e) The conservator tank shall have adequate capacity to accommodate oil preservation system and volumetric expansion of the total cold oil volume in transformer and radiators for a change in temperature from minimum ambient air temperature of 5°C to 110°C.
- f) The conservator shall be bolted into position so that it can be removed for cleaning purpose.
- g) The conservator tank , shall be fitted with a silica gel filter breather.
- h) The conservator of all transformers below 1000 KVA shall be fitted with plain oil level gauge with two independent low level electrically insulated alarm contacts. The oil level at 30°C shall be marked on the gauge.

The conservator of all transformer of 1000 KVA and above shall be provided with magnetic oil level gauge with two independent low level electrically insulated alarm and trip contacts. The oil level at 30°C shall be marked on the gauge.

Explosion vent

- c) The transformers shall be provided with the single diaphragm type of explosion vent with air release device .
- d) An equalizer pipe shall be connected to explosion vent from the conservator.

Bchholtz Relay A double float type buchholtz relay confirming to IS 3637 shall be provided . All gas evolved in the transformer shall be collected in this relay . The relay shall be provided

with a test coke suitable for a flexible pipe connection for checking its operation . A copper tube shall be connected from the gas collector to a valve located about 1200 mm above ground level to facilitate sampling with the transformer in the service .

The device shall be provided with two potential free contacts, one for alarm on gas accumulation and the other for tripping on rise of pressure.

Temperature indicator

c) Oil temperature indicator (OTI)

The transformers shall be provided with a 150 mm dial type thermometer for top oil temperature indication. The thermometer shall have adjustable, potential free alarm and trip contacts, maximum reading pointer and resetting device and shall be mounted in the marshalling box (1000 KVA and above) or on tank cover (below 1000 KVA). A temperature sensing element located in a pocket in the top oil shall be furnished. This shall be connected to the OTI by means of capacity tubing. Accuracy class of OTI shall be 2° C or better. The OTI shall have full scale deflection of at least 240° C and shall have linear graduation to read every 2° C.

d) Winding temperature indicator (WTI)

A device for measuring the hot spot temperature of the winding shall be provided on all transformer 1000 KVA and above. Accuracy class of WTI shall be $\pm 2^{\circ}$ C or better. It shall comprise the following :

- Temperature sensing element
- Image coil and bushing CT
- Auxiliary CT, if required to match the image coil
- 150 mm local indicating instrument with max. reading pointer mounted in marshalling box. It shall have two adjustable potential free contacts, one for winding temp. high alarm and one for trip, in addition to the contacts required for control of cooling equipment.
- Automatic temperature compensation
- All contacts shall be adjustable on a scale and suitable for connection in 240V circuit. These shall be accessible on removal of the cover. The WTI shall have a full scale deflection of at least 240° C and shall have linear graduation to read every 2° C.

Winding

- The conductors shall be of electrolytic grade copper free from scales & burns.
- All winding shall be fully insulated .
- Coil assembly and insulation spacers shall be so arranged as to ensure free circulation of oil and to reduce the hot spot of winding.
- All bus bars and leads shall be adequately supported in insulated cleats or frames shall be effectively locked.

Insulation materials

• Class "A" insulating materials specified in IS 1271 or latest version shall be used . Wood insulation , where used , shall be well seasoned and treated .**Insulating oil :** The new insulating oil shall confirm to IS 335 . No inhibitors shall be used in the oil.

The manufacturer shall dispatch the transformer filled with oil . Ten percent extra oil shall be supplied for topping up , in non returnable sealed containers suitable for outdoor storage.

Earthing Terminals

Two earthing terminals suitable for connecting 50 x 8 mm mild steel flat shall be provided at position close to the two diagonally opposite bottom corners of tank . These grounding terminals suitable for bolted connection . Two earthing terminals shall also be provided on marshalling box and any other equipment mounted separately

Cable boxes and disconnecting chambers

Cable boxes of suitable sizes shall be provided to accommodate cable termination. Cable boxes shall have terminals connectors of adequate size and bolt holes to receive cable lugs. Cable boxes shall have degree of protection IP-52 as per IS : 2147.Disconnecting chamber will be as per standard norms & practice.

Off circuit Tap change switch

The tap change switch shall be three phase , hand operated , for simultaneous switching of similar taps on the three phases by operating an extra handle .Arrangement shall be made for securing and pad locking the tap chamber in each of the working position . An indicating device shall be provided to show tap in use.

Radiators : The radiators shall be detachable type , mounted on the tank . Each radiator shall be provided with the following :

d) A drain valve at the bottom

- e) An air release plug at the top
- **f**) Shut off valve
- **Marshalling box** : A sheet steel weather, vermin and dust proof marshalling box shall be provided with each transformer of 1000 KVA and above to accommodate
 - Temperature indicators
 - Terminal blocks for incoming & outgoing cables

The marshalling box shall be supplied with space heater and cubical lighting with ON/OFF switches and associated fuses.

Fittings : The following fittings shall be provided with all the transformers :

- 11. Rating and diagram plate
- 12. Terminal marking plate
- 13. Two earthing terminals
- 14. Lifting lugs
- 15. Jacking lugs
- 16. Drain valve with plug of 50mm size
- 17. Dehydrating breather
- 18. Buchholtz relay with alarm and trip contacts with one shut off valve on 50mm conservator side
- 19. Plain oil level indicator
- 20. Magnetic oil level indicator for 1000 KVA and above
- 11.Off load tap changing switch
- 12.Oil filling hole with cover
- 13.Conservator

14. OTI

15 WTI for 1000 KVA and above

- 16. Explosion vent with air release device
- 17.Skids and pulling eyes on both sides

18. Rollers

19.Filter valve

20. Inspection cover

TESTS

The manufacturer shall carry out all routine standard tests in accordance with IS : 2026 on each transformer . The manufacturer shall submit copies of type test in accordance with IS :2026 at CPRI for similar or above than similar rating during last 5 years .

TECHNICAL DATA SHEET OF TRANSFORMERS FROM 250 KVA TO 3000 KVA

2.	Rated capacity		: 500 KVA
3.	Quantity -		1no
4.	Туре		: Core type oil immersed
5.	No. of phases		: 3
6.	Frequency		: 50 HZ +3%,- 5%
7.	Location		: OUTDOOR
8.	Type of cooling		: ONAN
9.	Type of oil		: Mineral oil
9.	Rated Voltage –		
	HV / LV Winding	:	6.6 /0.55 KV (±10%)

10. Impedance voltage at rated current $:5\% \pm 10\%$ up to 630 KVA

6.5%± 10% from750 to 1500 KVA

7%±10% from2000 to 3000 KVA

11. Tap changer type	: Off circuit
12. Tapping	: ±2.5%,±5%,±7.5%,0

- 13. Temp. rise (over ambient) in oil : 45°C
- 14 Temp. rise (over ambient) in Winding : 55°C
- 15. Earthing of neutral terminals : Required for LV winding
- 16. Method of system earthing : Star solid (LV winding)

TECHNICAL PARTICULARS TO BE SUPPLIED BY THE BIDDER (For all rating transformer separately)

A) GENERAL

- d) Name of manufacturer :
- e) Service Rating f) Rated KVA :KVA Rated voltage of HV : KV Rated voltage of LV : KV Temperature rise in oil :°C Temperature rise in winding :°C Rated frequency : d) Number of phases : e) Connection HV

LV	
Vector group	
f) Tapping :	
g) No load loss at rated voltage & frequency : KV	
h) Load loss at rated current at 75°C : KV	W
i) Impedance at rated current & frequency at 75°	C : Percent
j) Reactance at rated current & frequency	: Percent
k) Efficiency at 75°C at unity p.f.	:
At full load	: Percent
At 3/4 full load	: Percent
At 1/2 full load	: Percent
l) Regulation at full load at 75°C	
At unity p.f.	: Percent
At 0.8 p.f. lagging	: Percent
m) No load current at rated voltage & frequency	: Percent
n) Approximate weights :	
Core & winding	: kg
Tank & fitting	: kg
Oil	: kg
Total weight	: kg
o) Approx quantity of oil	: Ltr.
r) Approx overall dimensions :	
Length	: mm
Breadth	: mm
Height	: mm
s) Terminal arrangement :HV & LV	
r) Reference standard ;	

r) Reference standard ;

B) Special

1) Approximate maximum flux density at rat	ed voltage & frequency :
CGS.Line/cm ²	
2) Efficiency at 75°C at 0.8 p.f. lagging	
At full load	: Percent
At 3/4 full load	: Percent
At 1/2 full load	: Percent
3) Load at which maximum. Efficiency occurs	: Percent full load
4) Maximum efficiency	: Percent
5) Impulse level	
HV	
LV	
6) No load loss at 110% rated voltage & frequence	cy : KW
7) No load current at 110% rated voltage & frequ	iency : Percent
8) Type of winding :	
HV	

HV

LV

9) Insulating materials :

Turn insulation	HV		
Turn insulation			
Insulation core			
Insulation HV to	o LV		
10) Clearances :			
Minimum cleara	ance between phases		
a) In oil	: mm		
b) Out of oil	: mm		
Minimum clear	ance HV to earth in c	oil : mm	1
Minimum clear	ance – HV to tank in	oil : mi	m
11) Details of tank			
Approx. thickne			
	bottom	: mm	
	cover		
	tube radiators		
		. 111111	
12) Minimum clear	-		: mm
-	windings from tank		
13) Shipping detail			
Parts detached for	or transport		
Approx. wt. of h	neaviest package	: Kg	
Approx. dimensi	on of largest package	(Lx B)	x H) : mm
(C) Off-load tap ch	anger		
• Make ar	nd type		
	oltage and current		
	tage & no. of steps		
	ange a no. or steps		

- Locking arrangement
- Position indication

GUARANTEE/WARRANTY/PERFORMANCE BANK GUARANTEE

i) The item will be warranted against any manufacturing defects/workmanship for a period of 12 months from the date of commissioning or 18 months from the date of receipt and acceptance. Any defect observed on this account shall be attended to immediately and in no case beyond a period of one month. For specific warranty on assemblies and sub-assemblies, details given in Technical specification may be referred to.

ii) Special Warranty Clause:- If the order is decided to be placed on the bidder, the bidder should confirm against the clause that in the event of any breakdown or failure of performance due to defects in materials, design, workmanship ,spare parts etc.BCCL shall promptly notify the supplier in writing of any claims arising under this warranty. The repairs replacement or rectification work shall be carried out by the supplier at site at no cost to the purchase within 21 days of settlement of warranty claims.

"At no cost to the purchaser" means, the supplier will have to bear all the expenses up to the destination site i.e. Ex-works prices, Excise Duty, Sales Tax, Insurance, Inland Transportation charges etc. as applicable to ensure free delivery of warranty replacement at BCCL colliery sites.

The supplier will be required to stock spares to take care of warranty period breakdown. Spares should be available immediately from the date of intimation of breakdown.

iii) The suppliers must ensure that there is no major breakdown due to Manufacturing/ design defect during the warranty period. In cases such Breakdown occurs, the purchaser will reserve the right to extend the warranty period suitably as per the availability clause mentioned in the Technical Specification.

iv) A Performance Bank Guarantee on Scheduled/Nationalised Bank in India valid for 18 months from the date of receipt/acceptance for 10%Value of the order as a coverage towards the supplier's performance against the contract(in the standard format Appendix-III enclosed herewith), No payment will be made without submission of the performance bank guarantee. The order value means F.O.R. destination price including taxes ,duties ,transportation & insurance charges and other charges. Security money may be converted in to Performance Bank Guarantee wherever required .Please note that validity of Performance Bank Guarantee shall be as per Commercial terms & conditions .Please confirm the acceptance of this clause clearly.

ANNEXURE "C"

ANNEXURE "C" <u>CHECK-LIST</u> (To be filled by the Tenderer duly signed and stamped) Please verify your offer/ tender for the following check list for commercial terms as <u>under as per NIT.</u>

under as per N11.		D 1
Commercials Terms as per NIT		Remarks
1. Submission of <i>Notary certified</i> copy of valid registration BIS/DGS&D/DGMS/NSIC etc if Manufacturer	of	To be submited
2(a).Whether the tenderer is authorized by	the	Yes/No
Principal/Manufacturer		
2(b) If the reply agains(2(a) above is yes, then indicate name & full address of the Principal		To be submited
3 Submission of .Security-Money(Exemption allowed	for	To be submitted
State/Central Govt. Organization /PSU& DGS&D/NSIC register	ed for	after placement
endered items. Notarised copy of registration is required for cla		of order, pl
exemption).	υ	confirm.
4.Have you submitted the requsite EMD or have enclosed document notarised as per NIT for exemption in submitting EM		Tobe submitted
5.Delivery Clause		To be accepted
		/Indicated
6.Whether Payment terms as per NIT is accepted		Yes/No
7 (a)Price must be" FIRM" &" FOR Destination(ultimate consignee)"		To be accepted
7. (b)Pease confirm that price (price is not to be disclosed) in	n your	
price bid is given" with break up as under and also confir	m the	To be Complied
current rate of ED & Sales Tax etc.:-		with .
a)EX works price,		
b)ED if applicable		
c)P&F charges		
d)Sales Tax.		
e)Freight & Insurance,		
8. Acceptance of Jurisdiction of Dhanbad Court and Jharkhand	To be a	ccepted
High Court in case of any legal disputes.		1
9. Acceptance of 6 months offer's validity period as per NIT	Yes/N	No
		complied
Designation and stamped the company's seal on all		L
the pages of the tender document.		
11. Whether Liquidated damages & Risk purchase clause as	Yes/N	No
per NIT Confirmed.		
12Whether acceptance of Price fall clause is. submitted	Yes/N	No
13 Whether banned or delisted by any Govt or Quasi Govt		No (A separate
Agency/PSU		ration is to be
	given	
L	5.,61	1

14.Acceptance of Force majure clause	To be accepted
15.Inspection Clause as per NIT	To be accepted
16.Warrantee/ Guarantee	Tobe acceted /Indicated
17. Please confirm acceptance of PBG clause as per NIT.	To be accepted
18 .Pl confirm all other commercial terms as per NIT.	To be accepted
19 Submission of self attested Order copies for NIT Items	To be submitted
20. Bank Details	To be submitted
21. Ultimate Consignee clause	To be accepted
22.Packing for Transit clause	To be accepted
23. Have you enclosed a blank format of price bid as quoted	To be complied
by you(Without Price) along with your offer with the	
confirmation that price bid have been carefully prepared and	
signed on all pages of the price bid.	
24. Have you sought any deviation in commercial or technical	To be confirmed
parameters	

NOTE: NON -ACCEPTANCE OF ANY OF THE TERMS AND CONDITIONS MAY LEAD TO REJECTION OF OFFER/THE OFFER MAY BE TREATED AS UN-RESPONSIVE.

SIGNATURE OF THE TENDERER WITH SEAL & STAMP

NB:- (A) All commercial terms of the NIT schedule must be accepted in toto. In case if you deviate on any of the commercial terms of the NIT, that must be pointed out specifically.

(B) Management reserves the right to increase or decrease the Quantity against any/all the items of the tender by not more than 20% of the tendered Quantity.

(C) In case, if the opening date of tender falls on Holiday or on Saturday, the tender shall be opened at 3 P.M. on immediate next working day.

(D)Delivery Schedule:- Minimum delivery time to be offered

(E)VENUE OF TENDER OPENING:--OFFICE OF CGM(MM), KOYLA BHAWAN

Dy.C MM(P)

1.