Dt: 29-10-2016

Under jurisdiction of Dhanbad Court and Jharkhand High Court

Bharat Coking Coal Limited

A Mini Ratna Company (A Subsidiary of Coal India Limited- A Maharatna Company)

Regt. Off: Koyla Bhawan, Koyla Nagar Dhanbad-826005

CIN:U10101JH1972GOI000918



Office of the General Manager Materials Management Department Level-III, Commercial Block, Koyla Bhawan, Dhanbad-826005 Phone: 0326-2230181

Fax No.: 0326-2230183 Website: www.bccl.gov.in

ORIGINAL BY SPEED POST.

Dt: 29-10-2016

Under jurisdiction of Dhanbad Court and Jharkhand High Court only.

SUPPLY/PURCHASE ORDER

Ref: BCCL/PUR/215256/AB SWITCH/15-16/105/146

To

M/S Genuine Trade Centre 109, Netaji Subhash Road Kolkata-700001 Fax no:033-222712587 Phone:033-22712439

PAN no: ACPPJ8990D Vendor Code: 1/03/M/X/160

Category: Dealer

Contact Person: Mr.Rajiv Jhunjhunwala

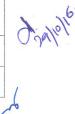
Sub: This office e-tender no: BCCL/PUR/215256/A B SWITCH/15-16/105 DATED 15.03.2016 opened on 16-04-2016 (twice auto extended date)

Ref: Your online offer (Bid no93597) submitted on 06.04.2016 through the portal of www.coalindiatender.nic.in against the subject tender (Tender Id no:2016_BCCL_33153_1) and subsequent confirmations and shortfall documents submitted.

With reference to the above, we are pleased to place an order on you for Supply of "AB switches" of various rating manufactured by M/S Power Electrical Industries, Kamardanga, Santragachhi, Howrah-711104, at the rates and scope of supply as indicated under as per the technical specification specified in the Annexure-A enclosed and as per the terms and conditions given hereunder along with general terms and conditions of NIT:

Scope of Supply:

NIT ITEM SL	ITEM DESCRIPTION	QTY.	UNIT BASIC RATE (RS.)	EXTENDEDVALUE (RS.)
2	AB Switch 11 KV 1240A	70	34900.00	2443000.00
3	AB Switch 33 KV1250A	05	53500.00	267500.00
1 J.	Sub Total	2		2710500.00
	CST @ 2%			54210.00
	Landed Value(Rs.)		, poet	2764710.00
198	CMPDIL Inspection Charge @ 1% of F.O.R. Destination value(Rs.)			27647.10
	Service Tax on CMPDIL Inspection charge @15 % (Rs.)		R	4147.06
	Grand Total Landed Value (Rs.)		12 2	2796504.16
	Round off(Rs)	2 % 2		2796504.00





(Rupees Twenty Seven Lakh Ninety Six Thousand Five Hundred Four only)
(Detailed technical specifications as per Annexure-A Enclosed).

1. PRICE: Firm and F.O.R Destination basis.

2. TOTAL ORDER VALUE: The total order value will be Rs. 27,96,504.00 (Rs. Twenty Seven Lakh Ninety Six Thousand Five Hundred Four only) on F.O.R Destination basis.

3. EXCISE DUTY: Not applicable. If applicable at the time of supply it will be borne by you.

- 4. <u>SALES TAX</u>: I) Concessional Central Sales Tax is payable extra as applicable against Form-"C". Present Rate of CST is @ 2% against Form-"C". Form 'C' will be issued by the consignee.
- 5. PACKING & FORWARDING CHARGES: NIL
- 6.DELIVERY PERIOD: Supply is to be completed within 03(three) month. Delivery shall be reckoned from the 10th day of placement of order.
- 7. FREIGHT &TRANS. INSURANCE: NIL, Shall be arranged by the firm. The safe arrival of the consignment at consignee's end shall be your responsibility.
- 8.MODE OF DISPATCH: By Road on F.O.R. Destination, Freight paid basis
- 9. ROAD PERMIT: Road permit, if required, may be obtained directly from the consignee under intimation to this office.

NOTE: You will ensure safe & sound delivery of stores at consignee's end.

Any increase in the rate of taxes & duties beyond delivery period will be to your account.

10. CONSIGNEE & PAYING AUTHORITY: Consignee & Paying Authority shall be as under:

Consignee	Paying Authority
The Depot Officer, Central Stores, Ekra, B.C.C.L.	HOD(F)(MM), Purchase Finance, Koyla Bhawan, BCCL,
	Dhanbad

11. <u>PAYMENT TERM</u>: 100% payment shall be made within 21 days of receipt and acceptance of the materials by the consignee or from the date of receipt of Bills, whichever is later.

12. <u>SUBMISSION OF BILL</u>: 100% value of bill duly stamped, signed & pre-receipted in five copies, as per terms of the order should be submitted for payment to the paying authority through consignee.

Bill should be submitted along with Challan, Consignment note (if required), packing list if any, guarantee/warranty certificate, fitment / Test certificate if required, proof of payment of freight charges if freight is claimed, documentary evidence of Excise duty payment if claimed, Price Certificate, Copy of Inspection Note of CMPDIL (If required) and other documents as per order (Note – All documents to be submitted shall be duly authenticated)

(No payment will be made without submission of Security Deposit & Performance Bank Guarantee).

No pa	yment will be made witho	ut submission of Security	Deposit & Fer	EDWAT INVOICE
- 2	THE DESIR	ED INFORMATION FOR RA	AISING VAI/C	CONSIGNEE
Name	& Address Of Area:	SUITER		
Tin No				
IST No		and the second of the second o		
CST N		4		
Circle		3		2 2 2 2 2
	e Tax Regd. No:	2		
	al Excise Duty Regd. No:			
	(Code):			- In the second of the second
	on (Code			
	nissionerate (Code):			
	PAR	TICULARS OF BANK ACC	OUNT: As confi	rmed by you
1	VENDOR/SUPPLIER/CON ADDRESS: (With Telephone No. & Fax		NAME&	Genuine Trade Centre 109,Netaji Subhash Road,Kolkata-700001 Phone:033-22712439 Fax no:033-222712587
2	PARTICULARS OF BANK ACCO		OUNT:	
	A. BANK NAME:		Indian Overseas Bank	
	B. BRANCH NAMI (Including RTGS			Amratala Branch IOBA0000720
	ADDRESS:			4/A,Rupchand Rai Street,Kolkata-700007
	C. 9-DIGIT CODE	NUMBER OF THE BANK ICR Cheque issued on the Ban SBI		7,00020010
	D ACCOUNT TY	PE:(S.B. Account/Current Acc	count Or Cash	Current

Dt: 29-10-2016

	Credit with Code 10/11/13)	NA
E.	LEDGER NO./LEDGER FOLIO NUMBER:	
F.	ACCOUNT NUMBER (CORE BANKING) & STYLE OF	072002000018355
	ACCOUNT	Genuine Trade Centre
334	(As appearing on the Cheque Book)	
	(As appearing on the Cheque Book)	

13. **GUARANTEE /WARRANTY**: The supply shall be covered by the maker's standard guarantee as follows:

You shall warrant that the equipment supplied under the contract / supply order

(a) is new, unused and of current design not likely to be discontinued or become obsolete till the life of the offered equipment.

(b) Is in accordance with the contract specifications.

(c) Shall have no defects arising out of design, materials or workmanship.

The supplier shall guarantee for the satisfactory performance of the complete equipment/ stores for a period of 12 months from the date of commissioning or 18 months from the date of dispatch, whichever is earlier. In the event of any defects in materials, design and workmanship during the aforesaid period is found due to faulty design or poor workmanship, the defective part or parts will be replaced by the supplier at site free of cost within 30 days of settlement of warranty claims. The supplier will be required to stock spare parts to take care of warranty failures. Spares should be available within 2 weeks of the breakdown being intimated to them.

The guarantee/composite warranty shall be submitted along with the bill. The warranty shall cover for the total equipment so that the necessity of having to approach different manufacturers of various components/assemblies does not arise and all services under warranty clause shall be the responsibility of the ultimate supplier of the composite equipment. You will also replace the defective parts, if any, during the warranty period free of cost. The responsibility to collect the defective / rejected material will lie with the supplier and the cost for such collection will have to be borne by the supplier.

14. PRICE CERTIFICATE: You should submit a certificate along with bill as stated below:

"The rates of the stores under this contract are the lowest at which we are selling to any other customer/Govt. Deptt./ Subsidiaries of CIL/ Other PSUs. If the materials are sold at any lower rate than that mentioned in this contract to any other agency, the same will automatically be applied to this contract from that date "

15. SECURITY DEPOSIT: You shall will be required to deposit as security money 10% of the value of this contract (including Taxes, duties, and other charges to the FOR Destination prices i.e. for Rs. 2,79,650.00 (Rupees Two Lakh Seventy Nine Thousand Six Hundred Fifty only) in the form of Bank Draft / Bank Guarantee within 15 days from the date of order in the prescribed format annexed with NIT. The validity of BG will be for a period of Three months beyond the expiry of delivery period. If you fail to deposit the security deposit within 15(fifteen) days from the date of order, the same shall be recorded as unsatisfactory performance for future dealings apart from taking any other penal action as may be deemed fit by BCCL. The Security Money shall be refunded within 30 days of satisfactory execution of contract. For unsatisfactory execution of contract Security Deposit shall be forfeited. Your EMD shall be refunded on submission of confirmed Security Deposit..

16. <u>INSPECTION</u> - Pre-dispatch inspection of each consignment shall be carried out by M/s Central Mine Planning & Design Institute Ltd(CMPDIL), Ranchi/their Regional Office as per the terms and conditions indicated hereunder:

Pre-dispatch inspection shall be carried out by M/s.CMPDIL(the above firm) as per their methodology. The third Party Inspection shall include examination of raw material, test certificate verification, continuous monitoring of quality assurance by manufacturer which will include regular and surprise visits. In brief, the scope and condition of Inspection by M/s.CMPDIL will be as follows:

Checking and approval of test procedures/quality assurance plans. Verification of records and documents of your works. Verification of documents and test certificate of bought out items and cross checks. You shall provide facilities for carrying out all necessary tests as required in the specification at your works else these will be carried out at an independent test house at your cost. Final testing and checking of materials as per specifications. M/s. CMPDIL will have full and free access to the premises of manufacturer during the process of manufacturing and during inspection activities. Inspection fee @ 1.0% of total F.O.R. Destination price with service Tax of 15 %, is to be paid to M/s. CMPDIL along with inspection call letter payable by DD which will be reimbursed subsequently by BCCL together with consignment billing. Minimum 7 calendar days notice shall be given by you to M/s. CMPDIL for arranging inspection within valid delivery period as per contract. The ultimate responsibility for supply of correct materials as per requirement of relevant specification lies solely with you in spite of clearance/acceptance by inspection authority i.e. M/s. CMPDIL. The manufacturer will be required to replace the material free of cost if found defective/unserviceable/not according to relevant

Dt: 29-10-2016

specifications. The charges for third party inspection and the cost of materials that would be required for destructive tests, if any, shall be reimbursed by BCCL together with the consignment billing. Such cost shall be reimbursed only if it is duly certified by M/s. CMPDIL. Please Ranchi/ their Regional Office as indicated above.

The purchaser shall, at its discretion, have the right to test the ordered material in a Government Test House or in a test house nominated by the purchaser. In case or failure of the material after testing the cost of tests as well as of the material shall have to be borne by the supplier.

Final Inspection at destination site shall be arranged by the consignee within one week from the date of receipt of the material. Supplier's technical representative must be available at the time of inspection.

17. PERFORMANCE BANK GUARANTEE: PBG on schedule/Nationalized Bank in India valid for three months beyond the expiry of Guarantee/Warranty period for 10% value of the order i.e. of Rs. 2,79,650.00 (Rupees Two Lakh Seventy Nine Thousand Six Hundred Fifty only) (order value means FOR destination price including taxes, duties, transportation & insurance charges & other charges if any) shall have to submitted to MM Division, BCCL, Koyla Bhawan on or before commencement of supply. PBG may be submitted either for the entire order quantity at a time or each equipment wise/lot wise.

18. PENALTY FOR FAILURE TO SUPPLY IN TIME

The 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 this office.

In the event of failure to deliver 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 you, as agreed liquidated damages, a sum not less than 0.5% (half percentage) of the price of the stores which you have 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 you, on your account and risk 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 your risk and cost 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 you, 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 you 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, you will pay BCCL on demand the remaining amount. You will not be entitled to any gain under this clause.

19. PRICE FALL CLAUSE:

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 offer to sell the stores of identical description to any other organization from date of offer till completion of supply under the contract.

ii) If at any time during the said period the supplier offers lower sale price of 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.

supplier.

20. FORCE MAJURE CLAUSE: If the execution of the supply order is delayed beyond the period stipulated in the supply order as a result of out-break of hostilities, delaration of embargo /curfew or blockade or fire, flood, acts of nature or any other contingency beyond the suppliers control due to act of God then BCCL may allow such addition time by extending the delivery period, as it considers to be justified by the circumstances of the case and its decision shall be final.

All other terms & conditions along with Technical Specifications and Scope of supply will strictly be as per our NIT and company's norms.

ALL DISPUTES ARE SUBJECT TO DHANBAD COURT AND JHARKHAND HIGH COURT JURISDICTION ONLY.

This contract is concluded with the issuance of this order. Two copies of the order is being sent to you

You are advised to acknowledge the receipt and acceptance of the order by returning one copy duly signed and stamped to this office positively within 15 days, failing which this order shall be deemed to have been accepted by you for execution.

Yours faithfully, For & on behalf of Bharat Coking Coal Ltd

(Niraj Kumar)

Sr.Manager(Excvn.)(MM)

(A D Santhish)
Chief Manager (MM)-III

INDENT & BUDGET CERTIFICATION REFERENCE

Indent no and date	BC &FC No. & dt.	
(i)BCCL/CGM(E&M)/F-Central Indent(Elect)/2015-16/AB Swtich/07 dated 19.11.2015	FC No: e-FC no 205 dated 25.10.2016 for Rs 27,96,504.00	
IR no and date	BC No. BC no: BCCL/C&B/CAP/Reg.PN-10/SN-94/e -BC no 331dated 14-10-2016 Head: Development(P&M Other	
215256(15-16) dated 29.01.2016	Stores),GM(M&M HQ Area) for Rs.27,96,504.00 .	

Copy: M/S Power Electrical Industries, Kamardanga, Santragachhi, Howrah-711104

Copy to:

- 1. HOD(Fin)(MM), MM Division, Koyla Bhawan
- 2. GM(E&M)I/C,BCCL
- 3. Depot Officer, Central Stores, Ekra
- 4. AM.(MM)(Tech Cell), MM Div, Koyla Bhawan.
- 5. CGM/GM(E&M), CMPDIL, Gondwana Place,, Kanke Road, Ranchi
- 6. Special Cell, CMPDIL, Gondwana Place, Kanke Road, Ranchi
- 7. Shri Naresh Chaturvedi, IAS(Retd.), CL-14, Sector-II, Salt Lake, Kolkata-70091
- 8. Master File / Office Copy

This issues with the concurrence and approval of the competent authority.

Enclosure: Annexure "A" ,Format of SD &PBG

Nog ku29/10/16 Sr.Manager(Excvn.)(MM)

Chief Manager (MM)-III

specifications. The charges for third party inspection and the cost of materials that would be required for destructive tests, if any, shall be reimbursed by BCCL together with the consignment billing. Such cost shall be reimbursed only if it is duly certified by M/s. CMPDIL. Please send inspection call to M/s. CMPDIL, Ranchi/ their Regional Office as indicated above.

The purchaser shall, at its discretion, have the right to test the ordered material in a Government Test House or in a test house nominated by the purchaser. In case or failure of the material after testing the cost of tests as well as of the material shall have to be borne by the supplier.

Final Inspection at destination site shall be arranged by the consignee within one week from the date of receipt of the material. Supplier's technical representative must be available at the time of inspection.

17. PERFORMANCE BANK GUARANTEE: PBG on schedule/Nationalized Bank in India valid for three months beyond the expiry of Guarantee/Warranty period for 10% value of the order i.e. of Rs. 2,79,650.00 (Rupees Two Lakh Seventy Nine Thousand Six Hundred Fifty only) (order value means FOR destination price including taxes, duties, transportation & insurance charges & other charges if any) shall have to submitted to MM Division, BCCL, Koyla Bhawan on or before commencement of supply. PBG may be submitted either for the entire order quantity at a time or each equipment wise/lot wise.

18. PENALTY FOR FAILURE TO SUPPLY IN TIME

The 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 this office.

In the event of failure to deliver 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 you, as agreed liquidated damages, a sum not less than 0.5% (half percentage) of the price of the stores which you have 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 you, on your account and risk 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 your risk and cost 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 you, 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 you 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, you will pay BCCL on demand the remaining amount. You will not be entitled to any gain under this clause.

19. PRICE FALL CLAUSE:

- 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 offer to sell the stores of identical description to any other organization from date of offer till completion of supply under the contract.
- ii) If at any time during the said period the supplier offers lower sale price of 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.

Dt: 29-10-2016

20. FORCE MAJURE CLAUSE: If the execution of the supply order is delayed beyond the period stipulated in the supply order as a result of out-break of hostilities, delaration of embargo /curfew or blockade or fire, flood, acts of nature or any other contingency beyond the suppliers control due to act of God then BCCL may allow such addition time by extending the delivery period, as it considers to be justified by the circumstances of the case and its decision shall be final.

All other terms & conditions along with Technical Specifications and Scope of supply will strictly be as per our NIT and company's norms.

ALL DISPUTES ARE SUBJECT TO DHANBAD COURT AND JHARKHAND HIGH COURT JURISDICTION ONLY.

This contract is concluded with the issuance of this order. Two copies of the order is being sent to you

You are advised to acknowledge the receipt and acceptance of the order by returning one copy duly signed and stamped to this office positively within 15 days, failing which this order shall be deemed to have been accepted by you for execution.

Yours faithfully, For & on behalf of Bharat Coking Coal Ltd

(Niraj Kumar)

Sr.Manager(Excvn.)(MM)

(A D Santhish) Chief Manager (MM)-III

INDENT & BUDGET CERTIFICATION REFERENCE

Indent no and date	BC &FC No. & dt.
(i)BCCL/CGM(E&M)/F-Central Indent(Elect)/2015-16/AB Swtich/07 dated 19.11.2015	FC No: e-FC no 205 dated 25.10.2016 for Rs 27,96,504.00
IR no and date	BC No. BC no: BCCL/C&B/CAP/Reg.PN-10/SN-94/e -BC no 331dated 14-10-2016 Head: Development(P&M Other
215256(15-16) dated 29.01.2016	Stores), GM(M&M HQ Area) for Rs.27,96,504.00 .

Copy: M/S Power Electrical Industries, Kamardanga, Santragachhi, Howrah-711104

Copy to:

- 1. HOD(Fin)(MM), MM Division, Koyla Bhawan
- 2. GM(E&M)I/C,BCCL
- 3. Depot Officer, Central Stores, Ekra
- AM.(MM)(Tech Cell), MM Div, Koyla Bhawan.
- 5. CGM/GM(E&M), CMPDIL, Gondwana Place,, Kanke Road, Ranchi
- 6. Special Cell, CMPDIL, Gondwana Place, Kanke Road, Ranchi
- 7. Shri Naresh Chaturvedi, IAS(Retd.), CL-14, Sector-II, Salt Lake, Kolkata-70091
- 8. Master File / Office Copy

This issues with the concurrence and approval of the competent authority.

Enclosure: Annexure "A" ,Format of SD &PBG

Sr.Manager(Excvn.)(MM)

Chief Manager (MM)-III

TECHNICAL SPECIFICATION OF OFF LOAD ISOLATOR/AB SWITCH

1.0 The requirement is for off load isolator for isolating equipment's / over head lines . It shall be confirming to IS 1818 of 1972 (latest amended if any) and IS 9921 part 1 to part 5 (1981 to 1985) as amended up to date .

1.1 Technical parameters:	1	2			
1.2 a) Nominal system Voltage KV(r.	ms) 33K	V 11 KV			
b)Rated voltage of the isolator	36KV	12 KV			
c) No. of phases	3	3			
d) Frequency	50 HZ	50 HZ			
e) Current rating	1250A	1240A			
f) Standard Impulse withstand voltage (+ & -) polarity:					
Across the isolating distance:	195KV	85KV			
To earth & between pole:	170KV	75 KV			
g) Rated one minute power frequency with stand voltage:					
Across the isolating distance:	80KV	32KV			
To earth & between pole:	70KV	28 KV			
h) Application	Outdoor	Outdoor			
i) Max. ambient temp.	50°C	50°C			
j) Atmosphere Heav	rily polluted	Heavily polluted			
k) Type: - (a.) 33KV - Single Throw, Double Break, Center Post Rotating, Manually					
Operated, Off Load Air Break Isolators with earthing switch					
(b.) 11KV - Single Throw, Double Break, Center Post Rotating, Manually					
Operated, Off L	oad Air Break	Isolators with earthing switch			
200 1 1 1 1 1 1 1 1 1 1 1					

2.0 Complete switch shall meet the following requirements.

- 2.1 Supporting insulators shall be of required no. post type brown glazed porcelains insulator—and tested in accordance with IS 2544 of 1973 (as amended up to date) . phase to phase and phase to earth clearance shall be as per relevant standards . Male and female contacts should be made of hard drawn copper blade of liberal cross section and the leakage distance shall not be less than the minimum specified in IS for heavily polluted atmosphere . Arching horn shall be provided and these should be made of copper rod having adequate diameter. Connectors shall be made of copper flexible braided tape .
- 2.2 Mounting: Shall be mounted on steel channels for horizontal / vertical operation as indicated above.
- 2.3 Connection terminals: There shall be solder less connectors to accommodate AAAC Wolf / Dog conductor or IPS tube 65 mm diameter.
- 2.4 Operating mechanism: The rotating / rocking units shall be supported on taper roller Bearings. Operating heights of blades should be adjustable if necessary. All moving parts should be fitted with brass / gunmetal / leaded phosphor bronze bushes. This should be complete with bar and C.I. pipe of adequate size and length. The same shall have arrangement for pad locking at OFF and ON position of the switch.
- 3.0 General: All non conducting parts should be galvanized
- 4.0 Testing shall be as per relevant BIS.
- 5.0 Following documents will have to be submitted at the time of bid:

Copy of test certificate from CPRI in support of type test particularly for similar or higher rating isolator.

- a) Minimum breaking capacity
- b)Minimum current (symmetrical) and other tests as per relevant IS.

chapola Inhope

Dt: 29-10-2016

6.0 Following documents will have to be submitted at the time of supply: Copy of routine test report as per BIS will have to be submitted for each isolator along with supply.

Sr.Manager(Excvn.)(MM)

- 19

Chief Manager (MM)-III