



**BHARAT COKING COAL LIMITED**  
( A Subsidiary of Coal India Limited )  
Office of the General Manager(MM)  
Materials Management Department  
Commercial Block L-III , KoylaBhawan : Koyla Nagar  
Dhanbad : 826005(Fax No- 0326-2230183) CIN:U10101JH1972GOU1000918  
( Under Jurisdiction of Dhanbad Court and Jharkhand High Court only)

**SUPPLY ORDER NO. BCCL/PUR/315040/CCTV System /Retender/15-16/31/17-18/173 dated.29.03.2018**

To

By Speed/Regd post

PSU

<b>M/S KERALA STATE ELECTRONICS DEVELOPMENT CORPORATION LIMITED</b> 20, BALLYGUNGE, CIRCULAR ROAD, KOLKATA-700019	<b>(vendor code: 1/12/D/T/298)</b>
	<b>GSTIN No-19AABCK1319E1ZW</b>
	<b>PAN no- AABCK1319E</b>
	<b>e mail:keltron.cal@gmail.com</b>
	<b>Phone:033-24765980</b>

**SUB: SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ADDITIONAL CCTV CAMERAS AND ASSOCIATED ACCESSORIES ALONG WITH COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT FOR A PERIOD OF FIVE YEARS AFTER COMPLETION OF GUARRANTY/WARRANTY PERIOD OF ONE YEAR.**

**REF: Your offer vide letter no KMO/KOL/BCCL/2016-17:154 DATED 20.07.16 against our letter no BCCL/E&M/16-17/1414 dtd 26/27.04.16 as per terms of our earlier order no BCCL/PUR/315040/CCTV System /Retender/15-16/31/183 dated 07.12.2015.**

Dear Sirs,

With reference to the above, we for and on behalf of BCCL, hereby place order on you for **Supply, Installation, Testing and Commissioning of additional CCTV cameras and associated accessories along with comprehensive annual maintenance contract for a period of five years after completion of guarrantly/warranty period of one year** as per item wise description and quantity of requirement along with price break up item wise indicated in Annexure-A-1 and A-2 attached and as per detailed technical specification and General terms and conditions enclosed at Annexure-A and B, followed by maintenance under CAMC for a period of 5 years as per terms and conditions enclosed at Annexure-C at following price, terms and conditions and as per General terms and conditions of NIT.

Item Details	Basic Value(Rs.)	Taxes	Landed Cost in Rs.
Materials for the project including spares (WITH ITEM WISE DETAILS /DESCRIPTION AND QTY OF REQUIREMENT ALONGWITH PRICE INDICATED IN ANNEXURE-A-1 AND A-2 ATTACHED AND AS PER DETAILED TECHNICAL SPECIFICATION ENCLOSED AT ANNEXURE-A)	₹ 124,34,741.86	GST extra as applicable as per Annexure A-1 ₹ 22,68,508.28	₹ 147,03,250.14
Freight Charges for the Materials for the project	₹99,560	0	₹99,560.
Installation & Commissioning charges for the complete system	₹ 19,54,515.75	GST@18% ₹ 3,51,812.84	₹ 23,06,328.59
CAMC Charges for 5 years after warranty(YEAR WISE BREAK UP AS INDICATED IN ANNEXURE-A-1)	₹ 13,48,603.10	GST@18% ₹ 2,42,748.55	₹ 15,91,351.65
<b>TOTAL LANDED COST</b>			<b>₹ 187,00,490.38</b>

(RUPEES ONE CRORE EIGHTY SEVEN LAKHS FOUR HUNDRED NINTY AND THIRTY EIGHT PAISE ONLY)

Note: Freight Charges are inclusive of taxes and shall be paid on submission of documentary evidence.

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**SUPPLY ORDER NO. BCCL/PUR/315040/CCTV System /Retender/15-16/31/17-18/173 dated.29.03.2018**

*[Signature]*

*[Signature]*





**1.PRICE:** FIRM and FOR destination basis

2. GST: a) GST shall be paid extra as legally applicable. Present rate is as indicated above

b) The invoice shall be raised by you giving all the details as per GST Act/ Rules so as to enable BCCL to avail Input Tax Credit.

c) You have to ensure proper uploading in your return so that BCCL may be able to avail Input Tax Credit.

d) if BCCL is not able to avail input tax credit due to your fault, then the amount of loss shall be recovered from you.

e) GST registration no of BCCL in case of supply for Jharkhand is 20AAACB7934MFZB and in case of supply for West Bengal is 19AAACB7934M2Z7. Kindly note the above mentioned IDs are provisional IDs and when GST authority will issue final registration certificate, the same shall be indicated, your bill (cenvatable) should bear this number to enable BCCL to claim input tax credit.

**4. COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT (CAMC) FOR A PERIOD OF FIVE YEARS AFTER EXPIRY OF GUARANTEE/WARRANTY PERIOD:** The CCTV System consisting of all items as at Annexure-A-1 shall be covered under a Comprehensive Annual Maintenance Contract (CAMC) for a period of Five Years after expiry of Guarantee/Warranty Period (as indicated under Guarantee/Warranty clause no.14) of the CCTV System. The scope and terms and condition of CAMC shall be as per relevant clause given under and as per Annexure-C.

**5. PAYMENT TERMS:**

a) For supply, installation & commissioning:

(a) 50 % payment (towards material cost) within 21 days after delivery and acceptance of material by BCCL against PBG of 10 % total value of the system (i.e. FOR destination price including taxes, duties, transportation & insurance charges & other charges, if any, plus total CAMC charges for 5 years). PBG to be given for total period of the contract including CAMC i.e. for 6 (six) years 3 (three) months (one year guarantee / warrantee, five years CAMC & three month additional for processing period)".

(b) 30% payment (towards material cost) within 21 days after successful installation, testing of the system at all sites of BCCL.

(c) Balance 20% (towards material cost) and Installation & Commissioning charges within 21 days after successful commissioning of equipment and acceptance of system by BCCL.

**b)Payment of CAMC charges :**

The payments of CAMC charges will be made half yearly after the successful completion of the work. Bills may be rendered by the contractor at the end of the six months and shall be paid by the company within 21 days after acceptance of the bill by respective Nodal Officer of area.

**6.DELIVERY PERIOD:** Total time for completion of job including supply, installation, testing and commissioning as per scope of work shall be 120days(the site for installation shall be readily available), which shall be reckoned from the 10th day from the date of issue of order and the date of receipt of materials at our stores including installation, testing and commissioning at the designated site shall be treated as the date of delivery.

**7.SECURITY DEPOSIT:** Exempted being a PSU.

**8. PAYING AUTHORITY:** HOD (F) Pay I/C, Koyla Bhawan, Dhanbad.





**9. CONSIGNEE:** Depot Officer, Central stores, Ekra, Dist.Dhanbad, Jharkhand.

**10.ALLOCATION:** as detailed in Annexure - D.

**11. Inspection and Tests:**

- i) The purchaser or 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) The inspections and tests may be conducted on the premises of the supplier or its sub-contractors), 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 date, 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 or make all alternatives necessary to meet specification requirements free of cost to the Purchaser.
  - iv) The Purchaser's right to inspect, test and, where necessary, reject the goods after the Goods arrival in the Purchaser's country 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 representatives prior to the Goods shipment from the country of origin.
  - v) Materials are subject to inspection by the purchaser before dispatch. The materials may also be subject to stage inspection by a third party nominated by BCCL for the purpose. Final inspection shall, however, be carried out at the consignee's end.
  - vi) Nothing in these documents shall in any way release the supplier from any warranty or other obligations under this contract.
  - vii) 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 of 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.

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

**12.PENALTY FOR FAILURE TO SUPPLY IN TIME/ LD CLAUSE:** 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 the purchaser. 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 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.
- 13.SUBMISSION OF BILL:**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, Lowest Price Certificate, and any other documents indicated elsewhere in the order. (Note – All documents to be submitted shall be duly authenticated).

(No payment will be made without submission of Performance Bank Guarantee)

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

The supplier shall warrant that the equipment/stores 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 installation, testing and commissioning or 18 months from the date of receipt and acceptance, whichever is earlier. . A certificate to this effect must be submitted alongwith the supply. 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. You 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/stores 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/stores. 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.

**15.PACKING:** Consignment shall be supplied in suitable standard proper packing.

**16.FORCE MAJEURE 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, 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.

**17. PERFORMANCE BANK GUARANTEE:** PBG on schedule/Nationalized Bank in India valid for three months beyond the expiry of CAMC period for 10 % value of the contract i.e. cost of the system including CAMC charges for 5 years i.e for Rs 18,70,050.00 (Rupees Eighteen lakhs Seventy Thousand and fifty only) shall have to be submitted to MM Division, BCCL, Koyla Bhawan on or before commencement of supply. The format for PBG shall be as per format enclosed.

The original Bank Guarantee should be sent to the beneficiary directly by the issuing bank under registered post with A.D

**18. IMPORT DOCUMENTS:** A certificate confirming the list of items supplied a) by directly importing b) by sourcing indigenously, shall be submitted along with the supply bill. In support of items directly imported by you a certificate of Auditor (in auditors letter head) certifying that you have paid Custom Duty as per prevailing Custom rates and refund if any shall be passed on to the buyer, shall be submitted along with. Supplies/bills and you shall also submit the following import documents as per clause no.20 OF NIT.

- a) A certificate of their Auditor certifying that they have paid Custom Duty as per prevailing Custom rates and refund if any shall be passed on to the buyer. Such certificate of their auditor to be uploaded along with online offer.
- b) Imported items offered by Indian Bidder: In case the required items are imported by an Indian Agent / distributor and offered to BCCL in Indian Rupees, the Indian Agent / distributor shall have to submit the following documents with each supply:
  - i) Their foreign principal's invoice or packing list – original as well as certified photocopy.
  - ii) Certified photocopy of Bill of Lading.
  - iii) Bill of Entry – Original as well as certified photocopy.

The originals mentioned above shall be returned back to you after verification and endorsement.

**19. AFTER SALES SERVICE:** After Sales service shall be rendered by you.

**20. LOWEST 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"

**21. PRICE-FALL CLAUSE:** The price charged for the Stores / Equipment supplied against the order, if placed, shall in no event exceed the lowest price at which the bidder shall sell or offer to sell the Stores / Equipment of identical description to its any customer during the pendency of the Contract / Supply Order. If the successful tenderer at any time during the pendency of the Contract / Supply Order sells or offersto sell such stores to any customer, at a price lower than the price stipulated in the Contract / Supply Order placed by BCCL, the successful tenderer shall forthwith notify to BCCL such reduction in sale price of stores / equipment supplied after such reduction coming into force shall stand correspondingly reduced.

**22. INSTALLATION:** Installation shall be done by you at the designated site as shall be indicated by the GM(E&M)/C,BCCL. The site for installation shall be made readily available on receipt and acceptance of the materials at consignee's end.

**23. TESTING & COMMISSIONING:** Testing & commissioning of complete CCTV system shall be done by you at the designated site as shall be indicated by the GM(E&M)/C,BCCL.





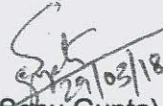
All disputes will have jurisdiction of Dhanbad Court & Jharkhand High Court only.

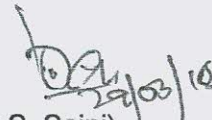
ALL OTHER REMAINING COMMERCIAL TERMS & CONDITIONS AND TECHNICAL SPECIFICATIONS ALONG WITH SCOPE OF SUPPLY WILL STRICTLY BE AS PER OUR EARLIER ORDER NO 183 DATED 07.12.2015 AS CONFIRMED IN YOUR OFFER, SHORTFALL DOCUMENTS AND YOUR SUBSEQUENT LETTERS.

N.B:- This purchase order/ contract is issued with the approval of the Competent Authority.

This contract is concluded with the issuance of this order.

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

  
(Sohu Gupta)  
Dy. Mgr(MM)

  
(N.S. Saini)  
GM(MM)

**BUDGET CERTIFICATION REFERENCE**

B C & F.C. No. with date
Capital-BCCL/C&B/CAP/Reg PN 11/SN-125/eBC no.511 dated 28.02.18(CAP 17-18) and Capital e-FC No.316 dated 06.03.2018 for Rs.1,71,09,138.73
Advance Revenue budget communicated vide letter no.BCCL/FIN(C&B)/18/D/457 Dtd. 26.03.18 of GM(F)C&B,BCCL addressed to GM(E&M)/I/C

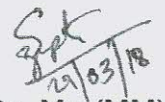
**ENCLOSURE:**

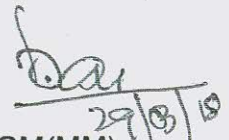
1. ANNEXURE-A-1: BREAK UP OF ITEM WISE DETAILS /DESCRIPTION AND QTY OF REQUIREMENT ALONGWITH PRICE
2. ANNEXURE- "A-2"- BILL OF MATERIALS WITH MAKE/MODEL
3. ANNEXURE - A- TECHNICAL SPECIFICATIONS
4. ANNEXURE - B- GENERAL TERMS AND CONDITIONS
5. ANNEXURE - C- SCOPE, TERMS & CONDITIONS FOR CAMC
6. ANNEXURE - D- LIST OF LOCATIONS
7. FORMAT FOR PBG

Copy to (For internal circulation):

1. GM (E&M) I/C, BCCL, KoylaBhawan
2. GM(F)(C&B)/HOD(F)(Pay) I/C, KoylaBhawan
3. Dy. Mgr (E&T), BCCL
4. Depot officer, Central stores, Ekra, Dist. Dhanbad, Jharkhand
5. Shri Naresh Chaturvedi, IAS(Retd.), CL-14, Sector-II, Salt Lake, Kolkata - 700091
6. Master File/Office Copy
7. MM(Tech Cell), MM Div, KoylaBhawan
8. GM(MM)CII/CCL/SECL/ECL/NCL/WCL/MCL/NECL

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

  
Dy. Mgr(MM)

  
GM(MM)



# ANNEXURE-A-1

SUPPLY OF CCTV SYSTEM WITH BREAK UP OF ITEM WISE DETAILS /DESCRIPTION AND QTY OF REQUIREMENT ALONGWITH PRICE

sl no	Sl.No. as per earlier order dated 183 dated 07.12.15	Item Description	HSN code	UO M	QTY	Basic Price in Rs. Per unit	Freight Charges in Rs. Per unit	GST rate	GST	Total Cost for all quantity
1	1.01	20X or of higher Resolution IP IR PTZ Dome Outdoor IP camera along with SD Card of 32GB (for Coal / OBdumps)	8525 8090	No.	25	₹ 80,389.68	₹ 300.00	18%	₹ 14,470.14	₹ 23,78,995.56
2	1.1	1 KVA On-Line UPS with 30 min. back up	8504 4010	No.	37	₹ 40,138.95	₹ 100.00	18%	₹ 7,225.01	₹ 17,56,166.56
3	2.01	Point to point Radios	8517 6290	No.	14	₹ 55,001.61	₹ 200.00	18%	₹ 9,900.29	₹ 9,11,426.60
4	2.02	Point to multi point radios	8517 6290	No.	23	₹ 64,984.52	₹ 200.00	18%	₹ 11,697.21	₹ 17,68,279.87
5	2.03	GI Powdered coated / Mild steel Poles of suitable height( as per site survey ) for installing Camera, Junction box, Radio equipment etc.	7308 9070	No.	6	₹ 15,336.75	₹ 1,500.00	18%	₹ 2,760.62	₹ 1,17,584.19
6	2.04	Self supporting / Guy Mast ground based towers of suitable height ( as per site survey ) for installing Camera, Junction box, Radio equipment etc.	7308 2000	No.	28	₹ 1,59,427.12	₹ 1,500.00	18%	₹ 28,696.88	₹ 53,09,472.04



sl no	Sl.No. as per earlier order dated 183 dated 07.12.15	Item Description	HSN code	UO M	QTY	Basic Price in Rs. Per unit	Freight Charges in Rs. Per unit	GST rate	GST	Total Cost for all quantity
7	2.05	8 Port Industrial Grade Managed Switch	8517 6290	No.	37	₹ 46,332.00	₹ 50.00	18%	₹ 8,339.76	₹ 20,24,705.12
8	2.06	Outdoor Vandal Proof Junction Box as per site reqrment	8473 3099	No.	37	₹ 2,767.05	₹ 80.00	18%	₹ 498.07	₹ 1,23,769.40
9	2.07	Earthing (chemical) for radio tower and Area control room	8545 1900	No.	37	₹ 0.00	₹ 0.00	18%	₹ 0.00	₹ 0.00
10	2.08	Surge Protection device for Pole/ Tower & all Control rooms	8536 3000	No.	55	₹ 1,029.60	₹ 30.00	28%	₹ 288.29	₹ 74,133.84
11	2.09	Armoured CAT-6 cable/ Optical Fiber cable ( as per site requirement)	8544 4292	Mtr	2850	₹ 41.18	₹ 5.00	28%	₹ 11.53	₹ 1,64,474.64
12	2.1	Armoured Power Cable ( as per site requirement)	8544 4299	Mtr	1850	₹ 69.49	₹ 5.00	28%	₹ 19.46	₹ 1,73,802.32
	TOTAL COST OF MATERIALS IN RS. INCLUDING TAX									148,02,810.14
			job		basic price		GST rate	GST		
13	3.01	Installation and commissioning charges	1		₹ 19,54,515.75		18%	₹ 3,51,812.84	₹ 23,06,328.59	
14	5.01	CAMC for 5 years after warranty period	1		₹ 13,48,603.10		18%	₹ 2,42,748.55	₹ 15,91,351.65	
	Total Landed Cost of the complete job									₹ 187,00,490.38

*Sgt*  
29/03/18  
Dy Mgr. (MM)

*Dai*  
29/03/18  
GM (MM)





**YEAR WISE BREAK UP OF CAMC**

Year	Budget Required in Rs.	Remarks
2019-20	₹ 2,38,702.75	(9 months)
2020-21	₹ 3,18,270.33	
2021-22	₹ 3,18,270.33	
2022-23	₹ 3,18,270.33	
2023-24	₹ 3,18,270.33	
2024-25	₹ 79,567.58	(3 Months)
TOTAL	₹ 15,91,351.65	

*Sgt*  
29/03/18  
Dy Mgr. (MM)

*Sgt*  
29/03/18  
GM (MM)

*Sgt*



## Annexure-A2

### BILL OF MATERIALS WITH MAKE/MODEL

Sl. No.	Item Description	Make	Model No.	UOM	QTY
1.01	20X or of higher Resolution IP IR PTZ Dome Outdoor IP camera along with SD Card of 32GB (for Coal / OBdumps)	INFINOVA	V1772NR-T	No.	25
1.10	1 KVA On-Line UPS with 30 min. back up	HUAWEI	UPS2000-G-1K	No.	37
2.01	Point to point Radios	RADWIN	RADWIN 2000 C SERIES	No.	14
2.02	Point to multi point radios	RADWIN	RADWIN HPMP HBS 5200 SERIES	No.	23
2.03	GI Powdered coated / Mild steel Poles of suitable height ( as per site survey ) for installing Camera, Junction box, Radio equipment etc.	STANDARD	-	No.	6
2.04	Self supporting / Guy Mast ground based towers of suitable height ( as per site survey ) for installing Camera, Junction box, Radio equipment etc.	STANDARD	-	No.	28
2.05	8 Port Industrial Grade Managed Switch	PLANET	IGS -10020HPT	No.	37
2.06	Outdoor Vandal Proof Junction Box as per site requirement	RACK-COM	RSOD009	No.	37
2.07	Earthing (chemical) for radio tower and Area control room	STANDARD	-	No.	37
2.08	Surge Protection device for Pole/ Tower & all Control rooms	REPUTED	-	No.	55
2.09	Armoured CAT-6 cable/ Optical Fiber cable ( as per site requirement)	DLINK	-	Mtr.	2850
2.10	Armoured Power Cable ( as per site requirement)	FELTEK	-	Mtr.	1850

Sgt  
22/03/18  
Dy Mgr. (MM)

Dy  
22/03/18  
GM (MM)



**ANNEXURE – A**  
**TECHNICAL SPECIFICATIONS**

Sl. No.	Item Specification
1.1	<b>20X or higher Resolution IP IR PTZ Dome Outdoor IP camera along with SD Card of 32GB (for Coal / OB dumps)</b>
	Sensor : 1/2.7" or 1/2.8" or 1/3" progressive CMOS/CCD or better
	Scan Mode : Progressive/ Interlace
	Zoom : 20X Optical and 12X Digital or better
	Lens : 4.7mm to 94mm or better
	Horizontal View Angle : 1.7° to 55.8° or better
	Day/Night : Auto Mechanical IR filter
	Minimum Sensitivity Day: 0.1 lx (color) Night: 0.01lx (mono) or better, 0 Lux with IR LED ON
	IR illuminator : Built in or External for 80 mtr or above and IR coverage should be 360°
	Resolution : 1920 X 1080 @ 30 FPS
	Signal/Noise Ratio : 50 dB or better
	Shutter/IRIS/Focus : Automatic with manual override
	Manual Shutter Speeds : 1 to 1/10000 sec. or better
	Exposure Control : Auto, Manual, Slow AE
	Video Compression : H.264 Main Profile and Motion JPEG simultaneously
	Wide Dynamic Range & Noise Reduction : Support WDR & Noise Reduction feature
	Multi Streaming/Multicast : Camera should support multi-streaming
	SD Slot : SD slot ( Min 32 GB ) card included
	Supported Protocols : UDP, TCP, HTTP,FTP, DHCP, IGMP, SNMP, NTP and as required
	Network Interface : 10/ 100BASE-TX Fast Ethernet RJ45 or better
	Time : Real time clock
	Pan range : 360° continuous rotation
	Tilt range : 0° to 90° or better
	Pan/Tilt speed : 0.1°/s to 80°/s or better
	Power : Compatible for PoE (IEEE 802.3af) / 24VAC/24VDC
	Housing : Vandal Proof ( IK10)
	Camera Should be ONVIF complied
	Temperature : 0°C to 50°C or better
	Humidity : 90% and above (Non-condensing)
	Ingress Protection : IP66 or better
	Certification : UL/EN , FCC & CE
	Accessories : Camera housing/enclosure, Power adapter and other accessories as required
1.10	<b>1 KVA On-Line UPS with 30 min. back up</b>
	Type : Online
	Capacity : 1 KVA
	Input Nominal Voltage : 160 to 280 V AC
	Power factor : >0.9
	Output Nominal Voltage : 230V AC,50Hz
	Waveform : Sinusoidal
	Total efficiency : >91%
	Battery Type : Sealed Maintenance Free (SMF), Inbuilt/external
	Average Backup time (at nominal load ) : 30 minutes
	Recharging time : < 4hr
	Protection : overload & short-circuit , DC : Over voltage /under voltage
	Indication : Line on , Battery on, Load on inverter
	Metering : Input voltage, Output voltage
	Voltage tolerance : 10% adjustable
	Environment : Temperature : 0°C to 50°C
	Cable of proper size : To be supplied along with UPS for proper installation
	Any other accessories, required for installation & proper operation of UPS should be included in the offer for UPS

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<b>2.01</b>	<b>Point to point Radios</b>
	Operating frequency : 2.4 or 5.8 Ghz De-licensed ISM free band
	Number of channels : Should support a minimum of 05 channels
	System standards : All the radio equipment shall comply fully with all customers defined mandatory requirement and conforming to the latest version of ETSI/ FCC/ IEEE & must have TAC ( Type Approval Certificate ) approval of WPC. All certificates to be submitted with technical bid.
	Step frequency : Should be a maximum of 5 MHz.
	Channel Bandwidth : Selectable channel width of 5,10, 20, 40 MHz or better
	Duplexing : TDD (Time Division Duplex)
	Features : Bridging , Multiple VLAN, QoS Management, Tunneling , IPv4 , TCP, UDP, ICMP, FTP
	Advanced wireless functionality : Dynamic Assymetric TDD
	Operating mode : The radios should be operable in a point to multi-point mode as CPE Station.
	Bandwidth throughput : 10/25/200 Mbps aggregated or as per site requirement & considering future expandability , quality of service
	System must support actual aggregate throughput of more than 90 Mbps and 180 mbps with 20 MHz and 40 MHz respectively without any license limitation.
	Network Interface type : 10/100/1000 Base-Tx, Ethernet (RJ-45) full duplex or as per system requirement
	Range of Operation : Up to 30Km or as per site requirement
	Antenna : External / Integrated dual-polarized 16° /20° directional or as per site requirement
	Safety features : Radios should have surge protection
	Security Features : FIPS-197 / AES-128 or better
	Synchronization : Provision of GPS/other synchronization to avoid self interference and interference due to other transmitting stations
	Power method : Power over Ethernet (POE) with 230V AC adapter or as per system requirement
	Operating temperature : -5 °C to + 55°C or better
	Relative Humidity: 5% to 90% (non-condensing)
	Accessories : Antenna, POE supported AC to DC adaptor, STP cable and other accessories as required.
	IP version : IPv4 and IPv6 compatible
	Ingress Protection - IP66 or better
<b>2.02</b>	<b>Point to Multi Point radios</b>
	Operating frequency : 2.4 & 5.8 Ghz De-licensed ISM Free band
	Number of channels : Should support a minimum of 05 channels
	System standards : All the radio equipment shall comply fully with all customers defined mandatory requirement and conforming to the latest version of ETSI/ FCC/ IEEE & must have TAC ( Type Approval Certificate ) approval of WPC. All certificates to be submitted with technical bid.
	Step frequency : Should be a maximum of 5 MHz.
	Channel Bandwidth : Selectable channel width of 5,10, 20, 40 MHz
	Duplexing : TDD (Time Division Duplex)
	Features : Bridging , Multiple VLAN, QoS Management, Tunneling , IPv4 , TCP, UDP, ICMP, FTP
	Advanced wireless functionality : Dynamic Assymetric TDD
	Error correction : FEC or better
	Operating mode : The radios should be operable in a point to multi-point mode as Base Station for connectivity of minimum 5 transmitters.
	Bandwidth throughput : Should be Minimum 200 Mbps ( aggregated) or better
	Network Interface type : 10/100/1000 Base-Tx, Ethernet (RJ-45) full duplex or as per system requirement
	Range of Operation Up to 30 Km or better as per site requirement
	Standards : OFDM and MIMO
	Antenna : External / Integrated dual-polarized 90° sector (Omni directional antenna) or as per site requirement
	Safety features : Radios should have surge protection
	Security Features : FIPS-197/AES-128 or better
	Power method : Power over Ethernet (POE) with 230V AC adapter or as per system requirement
	Operating temperature : -5°C to + 55°C or better
	Relative Humidity : 5% to 90% (non-condensing)

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	Diagnostic : Spectrum Analyser
	Synchronization : Provision of GPS/other synchronization to avoid self interference and interference due to other transmitting stations
	Accessories : Antenna, POE supported AC to DC adaptor, STP cable and other accessories as required.
	IP version : IPv4 and IPv6 compatible
	Ingress Protection - IP66 or better
2.03	<b>GI Powdered coated / Mild steel Pole of suitable height ( as per site survey ) for installing Camera, Junction box, Radio equipment etc.</b>
	Length of The Pole : 5 -15 Meters or as per site requirement
	Material : GI Powdered coated / Mild steel
	Provisions : Junction Box Mounting Provision & Cable Wiring Provision internally from bottom to Junction Box with required protection to avoid any damage.
	Size : Diameter : 15cm (or as per requirement of Pole length) Thickness: 5mm
	Earthing : Chemical Earthing for Pole
	Aviation lamp : LED for proper visibility
	Pole is required to be painted with rust free painting periodically
	Wind Speed : It can withstand Dhanbad & its surrounding Max wind speed
2.04	<b>Self supporting / Guy Mast ground based towers of suitable height ( as per site survey ) for installing Camera, Junction box, Radio equipment etc.</b>
	Type : Self supporting / Guy Mast ground based tower for mounting wireless Radio and camera
	Height : ** mtrs as per survey done by bidder
	Design : Arm with pipe of different diameter, Bracing with M.S Round of different dia. Welded and fabricated or of higher specs for stability
	Section : Triangular
	Leg Member : Pipe of Different diameter
	Tilt and Sway : +/- 0.5 Degrees
	Access ladder provided with tower
	Self Support : Diameter of Pipe : From 3" Diameter to 1" Diameter , from Bottom section to top section. Guyed Mast : Guyed must made with 1" to 1.5" Dia Pipe anchoring with Guy steel ropes 6 mm to 8 mm dia. G.I
	Working Platform : Platform at appropriate height to be built on tower
	Paint : The tower must be painted ( 2 coats) (Corrosion free) periodically
	Earthing : Chemical Earthing for tower
	Lightening Arrestor is to be provided with the tower
	The tower should be in section of 3 mtrs which should assembled at site
	Aviation lamp : LED for proper visibility
	Wind Speed : It can withstand Dhanbad & its surrounding Max wind speed
	Stability & built quality of tower is such that it can withstand trouble free service during warranty & CAMC period. The tower is required to be painted with rust free painting after every two years.
2.05	<b>8 Port Industrial Grade Managed Switch</b>
	No of ports per switch : 8 ports 10/100/1000M TX, 2 ports GSFP/TX Combo
	Switching Capability : 10Gbps or better
	Forwarding rate : All wire-speed forwarding and filtering 3.8 Mbps or better
	POE : IEEE 802.3af/802.3at standard 15 to 30 Watts power to devices
	MAC entries : 8K
	Switching Mode : Store-and-forward
	Flow Control : Back pressure at half-duplex, 802.3x at full-duplex, CAR (committed access rate) Support, 64K step size for 100-M ports, 8 M step size for Gigabit ports.
	Multicast : IGMP Snooping V1,V2
	Port Trunking : Up to 8 ports per group or better, dynamic LACP or static aggregation.
	Port Mirroring : Supported. Can be based on flow classification
	Spanning Tree : IEEE 802.1D (STP), IEEE 802.1w (RSTP), IEEE 802.1s MSTP
	VLAN : Port-based VLAN, 802.1Q tag VLAN, GVRP dynamic & VLAN configuration
	Network Security : IEEE 802.1X port-based user authentication Port Security, Hardware support for IP ACL, MAC ACL, VLAN ACL, IPv6 source/destination /TCP/UDP/protocol based ACL, User privilege classification and password protection





	QoS : Head Of Line (HOL) blocking prevention mechanism, 4 dispatching queues per port, mapping the 8 priority queues in 802.1p, Best Effort Service, Differentiated Service Strict Priority, Weighted Round Robin, First Come First Serve, TOS re-tagging
	Network Management : SNMP v1/v2 , RMON (Group 1, 2, 3, 9), Telnet, Command Line Interface (CLI), Web interface Support, NTP, SSH, LLDP
	Power Input : AC 100 - 240 V, 47 - 63 Hz, 1A/230V
	LED Indicators : Power, system, link, activity, 10/100M
	Operating Temperature : -5°C to 65°C or better
	Humidity : 5% - 95% (non-condensing)
	Mech.Shock/ Vibration : IEC 60068-2-27 standard for shock, IEC 60068-2-32 standard for free fall and IEC 60068-2-6 for vibration /Any other National/International Standard on Mechanical Shock/ vibration for Industrial Grade Switches
	Ingress Protection - IP30 or better
2.06	<b>Outdoor Vandal Proof Junction Box as per site requirement</b>
	Vandal Proof Junction box with proper gland as per site requirement
	Junction box is to accommodate all the equipment like UPS, Network switch, cable termination strip, and other components at the camera site. Hence, this shall be mounted firmly on the pole with GI iron clamps.
	Ingress Protection rating of Junction Box is such that the equipment inside the box is protected from dust and water
	The junction box should be lockable and shall have all cable entries at the bottom.
	All the equipment except the cameras shall be accommodated in the junction box, which is to be mounted on same pole.
	For terminating all cables, the junction box should have suitable terminating block or connections. All the cables shall be clamped with suitable clamp to avoid the damage of the core/conductors due to cables weight.
	A canopy to protect the junction box is to be attached to the pole
2.07	<b>Earthing (chemical) for radio tower and Area control room</b>
	Specification as per Class B type or better earthing
	Earthing should be Maintenance Free.
2.08	<b>Surge Protection device for Pole/ Tower &amp; all Control rooms</b>
	Heavy duty for lightening prone zone
2.09	<b>Armoured CAT-6 cable ( as per site requirement )</b>
	Applicable Standard : TIA/EIA and ISO Category 6 / Class E Requirements. Performance -ETL Verified to TIA/EIA-568-B.2-1
	Characteristics Impedance : 100 M Ohms
	Capacitance : 5.6 nf/Km (nominal)
	Voltage : 300 V AC or DC
	Propagation delay : 536 ns/100m @ 250MHz
	Velocity of Propagation : 69%
	Bend Radius : Approximately 1"
2.10	<b>Armoured Power Cable ( as per site requirement )</b>
	Power Cable : 3C X 2.5 sq.mm, Armoured , Specification - IS: 1554 (PT - 1)
	Conductor identification : Red, Black & Green
	Flexible Copper cable PVC insulated & sheathed (as per IS: 694-1990), PVC insulated armoured, KV Grade: Conductor- copper- STRANDED
	Annealed high conductivity multi stranded copper flexible conductor, Class 5 graded insulation
	Cable Selection - For Rated Voltage up to 1100V, as per IS:1554-1988 & IS: 5831-1984.

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Dy Mgr. (MM)

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25/03/18  
GM (MM)



**ANNEXURE – B**

**(D) GENERAL TERMS & CONDITION:**

1. **Scope of Work:** supply, installation, testing & commissioning of CCTV surveillance system along with comprehensive annual maintenance contract (CAMC) for five years after completion of warranty period of one year. BCCL is willing to install CCTV camera (25 nos. as per list of locations at Annexure - D) at vulnerable points in its Areas / Washeries. However, the number of camera may increase during warranty / CAMC period as per requirement of BCCL. The rate of equipment / material offered by you would also be applicable for future expansion of surveillance network during warranty / CAMC period. Each Area (12) & Washery Zone (2) would have Area Control Room to monitor CCTV of that particular Area. Camera of individual site would be sending live footage to respective Area / Washery zone control room through Wireless Radio link / Optical fibre cable (for less than 500 mtr.) / CAT-6 cable (for less than 100 mtr.) for live monitoring and storage at server. However, the offered system should also have provision for monitoring cameras of any Area / Washery zone from central location i.e. Koyla Bhawan, BCCL (HQ) using existing MPLS-VPN or through internet by authorized user of BCCL.
2. All required hardware and software for the system shall be supplied, installed and commissioned by you. Any extra item required (which is not mentioned in BOQ) like hardware/software & necessary manpower for successful installation, commissioning of system during warranty and CAMC period will be in your scope. Supply, installation & configuration of any additional software/component required for the desired functioning of the system shall be bidder's responsibility.
3. You shall constitute a project implementation team headed by Project Manager. This team will coordinate with BCCL designated Executives / Nodal Officer of Areas and submit execution plan / time schedule for faster execution of the project.
4. BCCL shall provide normal single phase AC power supply available at all sites. Any power conditioning equipment (like Stabilizer / CVT etc.) required for stable AC input power supply is required to be provided by the bidder. The Bidder shall lay Power / Data cable / Optical Fibre Cable in different lengths as required, using suitable clamps & in suitable conduits (PVC, HDPE or GI pipes) wherever required.
5. Complete system documentation, user manual, soft media and hard copy, giving details of configuration, various wiring diagrams, layout, Marking and labelling of all cables, ports, terminations etc. running instructions to be submitted. This will serve as reference document in case of any problem/ system augmentation etc.
6. You shall take necessary precautions to ensure that there is no damage to existing facilities in any form. In case of any damage, restoration of the same within least possible time is to be ensured by bidder.
7. After the installation and commissioning of the system as per the technical specification following are to be done.
  - a. Demonstration of smooth working of all cameras and system with required features.
  - b. Demonstration of viewing facility at Area Control Room and BCCL HQ. using MPLS-VPN with proper authorization & authentication.
8. All the equipment shall be provided with surge and spike protection devices or other alternate safety arrangement to safeguard the equipment against induced transients and voltage surge.
9. The scope is deemed to include all components, accessories and equipment required to implement a fully functional CCTV system regardless of whether they are explicitly mentioned or not.
10. You have provide video management software with Server which run seamlessly in the background to manage the access and storage.





11. CCTV system is required to ensure effective surveillance of an area as well as create a tamper proof record for post event analysis. The System shall provide online display of video images on LED monitors located in the designated Area Control Room.
- a) System should facilitate viewing of live and recorded images and controlling of all cameras by the authorized users present in the Area Control Room.
- b) System should provide inter-operability of hardware, OS, software, networking, printing, database connectivity, reporting, and communication protocols. System expansion should be possible through off-the-shelf available hardware like servers and PC/Workstations.
- c) The equipment with better specifications shall be preferred.
12. The recording resolution and frame rate for each camera shall be user programmable. The Area under surveillance shall be monitored and controlled from Control Room through workstations and Joystick controllers.
13. All camera recordings shall have Camera ID & location/area of recording as well as date/ time stamp. Camera ID, Location/Area of recording & date/time shall be programmable by the system administrator with User ID & Password.
14. System should have facility of additional camera installation beyond the originally planned during warranty or CAMC period. The rate offered against this tender would be applicable for additional camera and its associated material ordered during the warranty / CAMC period. However, if there is any reduction in the rate of the material, the same to be pass on to BCCL. A price certificate (as per format given below) is required to be submitted by bidder, while submitting offer for additional camera and its associated item.

"I/We certify that the stores of description identical to the stores supplied to the consignee concerned herein have not been sold by us to any other organization at the commencement of contract and up to the period of completion of delivery at a price lower than the price charged to the consignee concerned to the contract".

15. The offered system shall have facility to export the desired portion of clipping (from a desired date/time to another desired date/time) on CD or DVD or Hard Drive. Viewing of this recording shall be possible on standard PC using standard software like windows media player etc.
16. System shall have provision for remote monitoring from BCCL, HQ using existing WAN of BCCL. Any hardware/ software required for this would be in the scope of The bidder.
17. The administrator should be able to add, edit & delete users with rights. It shall be possible to view ability / rights of each user or the cameras which can be viewed & controlled as per the permission assigned by the administrator.
18. System should have recording modes viz. continuous, manual, or programmed modes on date, time and camera-wise. All modes should be disabled and enabled using scheduled configuration. It should also be possible to search and replay the recorded images on date, time and camera-wise. It should provide on screen controls for remote operation of PTZ cameras. It should have the facility for scheduled recording. Different recording speeds (fps) and resolution for each recording mode for each camera should be possible.
19. System should provide programmable motion detection and scheduled based recording, to be defined whenever required. System must be able to support video motion detection algorithms to detect and track objects. It should also be able to adapt to a changing outdoor environment, ignore environmental changes including rain, hail, wind, swaying trees and gradual light changes.
20. The software for clients should be working on a browser based system for remote users. This will allow any authorized user to display the video of any desired camera on the monitor.





21. Retrieval: The CCTV application should allow retrieval of data instantaneously of any date / time interval chosen through search functionality of the application software. The system should also allow for backup of specific data on any drives like DVD/Hard-Drives/DDR Recorders or any other device in a format which can be replayed through a standard PC based software. Log of any such activity should be maintained by the system which can be audited at a later date.
27. All the Cameras shall be IP Based, suitable for Day and Night Surveillance compatible with Server & PC workstation.
28. The cameras shall be industrial grade suitable for operation in COALMINES in Natural and Artificial lighted areas.
29. You have to provide Enterprise level video management software (VMS) for complete system as required for the current project.
- a) The specifications for the Enterprise Level VMS is detailed below:
- I) The Enterprise Level VMS should be with Distributed architecture with No single point of failure, Highly scalable with provision of accommodating 300 cameras.
  - II) Permissions - The VMS should have an option of providing user based restrictions to receive only Video/Audio or Both.
  - III) VMS should be ONVIF conformant
  - IV) Synchronous Playback & simultaneously playing recorded and live video
  - V) Active directory support for users
  - VI) Mobile device support - Android & iOS
  - VII) Bookmarking, Bookmarking search, Thumbnail overview & incident export support
  - VIII) Access permissions based on object and function
- b) Video Management Software (VMS) should have features of viewing minimum 12 nos. cameras per screen, zooming in to see final detail and camera locations, click to view a map of specific area of the site, show alarm zone/ alarm detectors areas, highlighted on alarm are when alarm detector is activated and hidden once the alarm is cleared.
30. The overall CCTV surveillance / solution system shall confirm to the ONVIF (Open Network Video Interface Forum) specification which guarantees interoperability between network video products regardless of manufacturer.
31. You are required to post at least one competent Service Engineer at BCCL HQ. and four technical person at four locations in BCCL command Area (after consultation with BCCL authority) during the warranty and CAMC period. The service Engineer will report to General Manager (E&M) I/c, BCCL HQ. or his authorized representative.
- In addition to above, semiskilled manpower shall be provided by the contractor during warranty and CAMC period for cleaning of Camera & CCTV surveillance associated equipment periodically so that the performance of system is not deteriorated on this account.
- You have to arrange transportation on their own for man & material during supply, installation & commissioning, warranty period and CAMC period. No transportation will be provided by BCCL.
32. Sufficient spares & accessories to be kept at central location (at BCCL HQ.) for smooth operation and maintenance of CCTV system and essential items (like camera, Sever, Radio, network Switch etc.) for immediate replacement during warranty and CAMC period.
33. Free training to Engineers / supervisors / technicians from each project / unit should be given by the contractor / tenderer during installation & commissioning at site and 2 / 3 Engineers at their works free of cost.





34. Office accommodation to Service Engineer at BCCLHQ will be provided by BCCL during installation / warranty / CAMC period. However, No residential accommodation will be provided by BCCL during installation / warranty / CAMC period.
35. You should ensure to provide sales & service support at least for 06 years after successful installation & commissioning. Bidder should give an undertaking certificate for the same.
36. **PENALTY CLAUSE:**  
 Note : If the viewing /recording of the particular camera is not recorded due to breakdown of camera or its accessories / associated items (Switches, Radios, Server, PC& Cable etc.), the particular CCTV camera will be considered under breakdown for the purpose of calculation of penalty.
- a) Penalty for non-functioning of the CCTV camera will be calculated by the formula given below, if the CCTV camera or its accessories / associated items is not repaired within 24 hours and will be deducted from the CAMC charges.  

$$= (2 \times \{\text{CAMC charge of the CCTV system} \times \text{No. of CCTV cameras under breakdown} \times \text{Number of days}\}) / (365 \times \text{Total no. of cameras})$$
- b) In case of damaged / cut to Ethernet /OFC cable and wireless link then same must be restored back within 24 Hrs.
- c) The day to day record for the breakdown time will be kept by BCCL representative posted at area control room for the performance of the CCTV system and to be informed to Nodal officer of concerned area or his representative for his final record for deduction of penalty against the bill of the tenderer.
37. **VALIDITY OF CONTRACT:**  
 The contract for offered CCTV system will be valid for a period of 05 (five) years after completion of one year warranty period. The warranty period will commence from the date of acceptance of complete system in all respect by BCCL.
37. **PAYING AUTHORITY:**HOD(Finance)Pay I/c, Koyla Bhawan, BCCL.  
 However bills raised for installation, commissioning & CAMC is required to be certified by respective Area Nodal Officer before submission to GM(E&M) I/c, Koyla Bhawan, BCCL or his authorized representative.
38. **OPERATION OF THE CONTRACT:**  
 The contract will be operated by GM (E&M) I/c, BCCL or his authorized representative.
39. **PRICE CERTIFICATE:**  
 The firm will certify that the prices charged by them under the contract are not higher than the prices charged by them for similar machine / equipment (similar model) to other Govt. department/Public Sector undertaking, including CIL and its subsidiaries. Price certificate is required to be submitted along with bills raised by the contractor.
40. **ALTERATIONS:** Any alteration to the equipment, such as shifting the position of CCTV system during warranty/ CAMC period shall be done by the contractor. If any extra material/ component is required for such shifting, the cost of material would be payable extra by BCCL on mutually agreed rate.
41. **COMPENSATION:** The contractor shall be responsible to their employees who work on CCTV system, situated in the company's premises in different projects/units/HQ at various location for any injury sustained by them.
42. **TERMINATION OF CONTRACT:**  
 The contract may be rescinded and the security deposit and other dues of this work or any other work done under the company may be forfeited and brought under the absolute disposal of the company if.in the opinion of the company (i) either the work is not progressing satisfactorily or



is not likely to be completed within the stipulated time or (ii) if the contractor fails to comply with the terms and conditions of the tender.

**43. SAFETY:**

The safety of the workman engaged by the Contractor/CAMC holder is the sole responsibility of the Contractor / CAMC holder. The Contractor/CAMC holder shall make all possible measures for safety as per statutory provisions. Any compensation on account of damage of person or properties of the CAMC holder has to be borne by the Contractor. It shall be governed as per statutory requirement.

**44. ACCOMODATION:**

The required office accommodation will be provided to maintenance persons / engineers posted at BCCL, HQ for maintenance / repair of CCTV system, however the required office furniture like chairs & tables for sitting of service engineers, Almirah for storing and rack etc. will be arranged by the contractor / CAMC holder. The residential accommodation for maintenance persons will be the responsibility of the contractor/CAMC holder.

**45. LABOUR LICENSE:**

The Contractor/CAMC holder must obtain & process the labor license, if they are engaging more than 19 persons as per law & same has to be produced to the engineer.

**46. CHILD LABOUR :**

The Contractor/CAMC holder shall abide by the provisions of OHSAS:18001 and SA:8000. For example, child labor shall not be engaged, no unwilling worker will be engaged by force, payment shall be made as per minimum wages declared by Govt. time to time permissible working hours as per rule, good healthy working environment etc.

**47. ADJUSTMENT OF THE DUES :**

If any sum found due from any payable to the company by the contractor in connection with this contract or any other contract/contracts, the company shall have right and liberty to adjust the same out of the due under other contract.

**TRANSPORT:**

The contractor has to arrange transportation on their own for man & material during supply, installation & commissioning, warranty period and CAMC period. No transportation will be provided by BCCL.

**48. SETTLEMENT OF DISPUTE :**

It is incumbent upon the contractor to avoid litigation and disputes during the course of execution. However, if such disputes take place between the contractor and the department, effort shall be made first to settle the disputes at the company level.

a) The contractor should make request in writing to the engineer in-charge for settlement of such disputes/claims within 30 (thirty) days of arising of the cause of disputes/claims falling which no disputes/claims of the contractor shall be entertained by the company.

b) If the difference still persists, the redressal of the dispute may be sought in the court of law.

**49. P.F. CLAUSE:**





The contractor shall have to ensure implementation of CMPF and MISC. Provisions Act, 1948 and allied scheme framed there under in respect of the worker deployed by him and will have to recover statutory dues and deposit the same along with Employer's Contribution (contractor share) to the respective CMPF Office and to submit statutory returns under intimation to the principal employer. The registration no. of the coal mines in which the workers engaged by the contractor are working has to be furnished in the statutory returns to be submitted to the concerned CMPF Office stated as "Contractor's workers". The contractor shall have to submit an affidavit along with the tender that they will abide by this clause.

OR

Those contractor who are registered under EPF scheme and their employees covered under the said scheme may continue to operate under EPF scheme. They should furnish such proof.


#### 50. AWARENESS OF ACTS, RULES & REGULATIONS

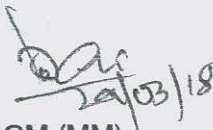
The contractor/CAMC holder shall familiarize himself and fully comply with provisions of all the Acts/Rules/Regulations and orders of the State/Central Govt. applicable to the work, e.g. Payment of wages Act, Workmen's Compensation Act, Contract Labour (R&A) Act etc. and shall be fully responsible and liable for due observance of the same. The company (BCCL) shall have no responsibility/liability and the company shall be fully indemnified by the contractor against all such claims.

#### 51. Stock of SPARES:

You will keep stock of necessary spares of CCTV system with their service engineer /technician posted at BCCL command Area for smooth functioning of the CCTV system. Sufficient spares for major items/ components of existing CCTV system to be kept in stock at HQ (by contractor) for immediate replacement / repair. Maintaining sufficient spares for un-interrupted service of CCTV surveillance system would be the responsibility of contractor. Provision for critical spares is also made in the BOQ. These spares would be under custody of BCCL authority at HQ., Koyla Bhawan. These spares would be utilized by BCCL for expansion of CCTV surveillance network or it may be issued to contractor on request, in case of any failure of CCTV system equipment at any locations of BCCL for immediate restoration. However, contractor is required to arrange replacement / repair of faulty units within 10 days, failing which cost of the spares utilized by contractor would be recovered from the running bill of the contractor.

52. Wherever software license is supplied along with material, it should be licensed to BCCL.

  
Dy Mgr. (MM)

  
GM (MM)



**Annexure – C**

**SCOPE, TERMS & CONDITIONS FOR CAMC**

**SCOPE OF CAMC:**

- a) All repairs/replacement/servicing/fixing of the entire CCTV system shall be carried out only by the contractor / successful tenderer and company Bharat Coking coal Limited (BCCl) shall not permit or allow any other party other than the authorized contractor / successful tenderer to handle or deal with the equipment.
- b) Repair/replacement/servicing shall mean system testing, repair and maintenance of entire/total equipment for proper functioning of CCTV system. The CAMC includes repairing & maintenance of CCTV camera, servers, PC work station , network switches, monitor, wireless equipment, joystick, UPS and other associated items e.g. connectors, Ethernet / Optical fiber cable, Power cable, HDPE pipe etc. The CAMC charges also include the expenses for preventive maintenance and routine check-up and attending to breakdown calls as and when required.
- c) The contract is comprehensive and includes replacement, fitment, maintenance and repair of all type of spare parts (Components/printed circuit board /power supply units/connectors & Electronics sub systems etc.), for replacement of defective parts and repair of the existing CCTV system. No extra charges will be payable by BCCl on account of these spares.
- d) Any additional software required other than those provided at the time of commissioning for incorporating major additional facilities shall be charged extra. However any modification of software for the change in class of service and to provide same additional facilities within the existing software provided in the system shall be covered under CAMC.
- e) Cleaning of CCTV camera and its associated equipment in the project / units, periodically / as and when required so that the performance of system is not deteriorated on this account, is in the scope of CAMC

**CAMC CHARGES:**

- a) The Comprehensive Annual maintenance charges for the CCTV system shall be for 5 years after completion of one year warranty period.
- b) The CAMC charges for the CCTV system shall be firm during the contract period.
- c) The service tax shall be paid at the prevailing rates on production of documentary proof.
- d) All other taxes & levies as may be applicable due to or under the law from time to time shall be inclusive of CAMC charges.

  
Dy Mgr. (MM)

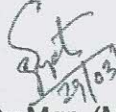
  
GM (MM)






**ANNEXURE – D**  
**Allocation - List of locations**

Area	Location name	No. of Camera
Barora	KKC(Link-siding)	1
Block II	Railway siding KKC Main	1
	Railway siding Kesurgarh	1
Govindpur	NLG Railway siding	1
	SLG Railway siding	1
Katras	LLK Railway siding	1
	Jogta Railway siding	1
	Gareria Railway siding	1
Sijua	Railway siding Sendra Bansjora	1
	Sijua Railway siding	1
Kusunda	KDS-2 Railway siding	1
	KDS-K Railway siding	1
PB	PB Boragarh Railway siding	1
Bastacola	Railway siding CKWEST	1
	Railway siding BNR	1
Lodna	Railway siding GOL6	1
	Railway siding GOL9	1
CV	Damagoria Railway siding	1
	NL OCP Railway siding	1
Washery	Sudamdih Railway siding	1
	Bhojudih Railway siding	1
	Mahuda Railway siding	1
	Moonidih Railway siding	1
	Dugda Railway siding	1
	Madhuban Railway siding	1
	<b>Total</b>	<b>25</b>

  
 29/03/18  
 Dy Mgr. (MM)

  
 29/03/18  
 GM (MM)



## Appendix - I

### FORMAT OF PERFORMANCE BANK GUARANTEE

1. Messers ----- a company having Regd. Office /its office at -----  
 -----hereinafter called the Seller has entered into a Contract No.-----dt.-----  
 (hereinafter called the said Contract) with Bharat Coking Coal Limited having its Regd. Office (address to the  
 given.----- (hereinafter called, the Purchaser) to supply equipment on the terms and conditions in the said Contract.

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,----- (Name of the Bank) 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,----- (Name of the Bank) 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 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 -----period of contract + 90 days from the date of Bank Guarantee) we  
 shall be discharged from all liability under this guarantee thereafter.

4. We, (Name of the Bank) 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 relieved 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,----- (Name of the Bank) 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.

[ In case the BGs are from outstation branch of Dhanbad then BG shall be encashable at Dhanbad/Kolkata branch of issuing bank with address and  
 location of the said branch at Dhanbad/Kolkata will be as under :

Name of the Bank :

Name of the Branch :

Location & address :

The BG shall be subject to the jurisdiction of the Civil courts Dhanbad District only.]

The Bank guarantee issued by the Bank on behalf of the supplier in favour of Bharat Coking Coal Limited, shall be in paper form as well as issued  
 under " Structural Financial Messaging System". The detail of beneficiary for issue of BG under SFMS mode platform are furnished below:

Name of Bank : State Bank of India

Branch name : Main Branch Dhanbad

A/C no. : 35160317947

IFSC Code : SBIN0000066

**OR**

Name of Bank : ICICI Bank

Branch name : ICICI Bank, Dhanbad

A/C no. : 019605001057

IFSC Code : ICIC0000196

platform is furnished below:

Date----- Day of -----20

For ----- Bank

Signature of the authorised person

for and on behalf of the Bank

Emp. Code.





