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

ADVERTISED DOMESTIC TENDER

Under jurisdiction of Dhanbad Court and Jharkhand High Court only.

TENDER NO – BCCL/Pur/610000/SDL Machine(std. & low height)/09-10/20

DUE DATE & TIME FOR SUBMISSION- BY 1.00 PM ON 29-05-2009.

DUE DATE & TIME FOR OPENING- AT 3.00 PM ON 29-05-2009.

COST OF TENDER DOCUMENT – RS.5000.00

REQUIRED AMOUNT OF EARNEST MONEY – RS.10,00,000.00(RS. TEN LAKHS) ONLY.
( Please see clause no.11 & 13)

ESTIMATED VALUE OF TENDER-Rs.1146.00 lakhs.

C.R.NO……..DATED….

TENDER ENQUIRY

<table>
<thead>
<tr>
<th>Document issued to:</th>
<th>If this Tender Document has been downloaded from BCCL website (1) The bidder must enclose the required Bank Draft for the requisite Tender Fee i.e. cost of Tender Documents along with the tender [Part-III envelope Clause 8(c) ] otherwise their offer shall be rejected out rightly without any reference (2) A certificate is required from the bidder that they undertake that the tender submitted by them is downloaded from BCCL Web site (<a href="http://bccl.cmpdi.co.in">http://bccl.cmpdi.co.in</a>) and that it is the same in contents and form (verbatim). Any deviation , if detected at any stage , would entitle BCCL to reject their offer / bid without assigning any reason or recourse to any penal action and would be legally binding on them.</th>
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Dear Sirs,
Sub: Notice Inviting Tender for supply of DGMS approved SDL Standard and Low Height 1.0 cum capacity with gate end Box along with spare parts.

1. Sealed tenders are invited in duplicate only from the proven indigenous manufacturers or their exclusively authorised sole selling agents for supply of DGMS approved SDL Standard and Low Height 1.0 Cu.Mtr capacity with Gate end Box along with spare parts to various Areas of BCCL as per detailed specifications enclosed as annexure – “A-1 and A-2”.

(Criteria of Prove ness has been specified at clause no. 7 of the special notes on spares and other terms of Annexure – “A-1 and A-2”)

1992
2. Requirement :

<table>
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<tbody>
<tr>
<td>1</td>
<td>DGMS approved SDL Standard Height 1.0 Cu.Mtr capacity. with Gate End Box along with spare parts.</td>
<td>Nil</td>
<td>32 nos</td>
<td>32 (Thirty Two) nos</td>
</tr>
<tr>
<td>2</td>
<td>DGMS approved SDL Low Height 1.0 Cu.Mtr capacity. with Gate End Box along with spare parts</td>
<td>Nil</td>
<td>06 nos</td>
<td>06 (Six) nos</td>
</tr>
</tbody>
</table>

3. The offers are to be submitted before the closing date and time as mentioned above. Late Tenders will not be considered.

4. Tenders may be deposited in person by the tenderer in the Tender Box kept at Tender cell, Purchase Department, office of the CGM(MM), Bharat Coking Coal Limited, Commercial Block, Level -III, Koyla Bhawan, Koyla Nagar, Dhanbad or sent by post or courier to the above address. Bharat Coking Coal Limited, however, do not take any responsibility for loss of tender in transit. Tender must be received on or before the due date and time of submission of tender. Tender received after due date of submission of the tender shall not be considered. No request for relaxation in this respect will be entertained.

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

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

7. The tender document is divided into the following parts:
   - Annexure ‘A-1’ - Technical / Equipment specification for SDL Machines 1.0 CUM capacity Standard Height with Gate End Box along with Spare parts.
   - Annexure ‘A-2’ - Technical / Equipment specification for SDL Machines 1.0 CUM capacity Low Height with Gate End Box along with Spare parts.
   - Annexure ‘B’ - Commercial Terms and conditions for above types of SDLs.
   - Annexure ‘C’ - Blank format of price bid as to be quoted by the tenderer (without price) for equipment.
   - Annexure ‘D’ - Check List for above types of SDLs.
   - Annexure ‘E’ - Format of Integrity pact.

8. (a) The offers are to be submitted in four parts. The first part “Part- I i.e. Techno-commercial offer” should contain the detailed Technical and commercial terms of the offer. In other words it should contain the required details as per annexure A to E as stated at clause 7. However, this should not contain the price. The envelope should be sealed superscribed with the tender number and the date of opening and must mark Part I
(b) The second Part “Part-II i.e. Price Bid” should contain the details of price only. The price bid should be submitted as per Proforma enclosed as Annexure – “C”. The envelope should be sealed superscribed with the tender number and the date of opening and must mark Part II.
(c) "Part – III" [Applicable for those tenderers who will download tender documents from our website.]

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

(d) "Part-IV" the intending tenderer must enclose the Integrity Pact format duly signed and stamped in all pages in the Part IV envelope. The envelope shall be sealed, superscribed with tender number and due date of opening and must mark "Part-IV".

All the envelopes containing the tender shall be properly sealed. Envelopes stapled shall not be accepted. The name and address of the bidder must also be indicated on the envelopes. Please note that envelopes stapled shall not be accepted. All these four sealed envelopes i.e. "Part – I" [Techno-commercial bid], "Part- II" [Price bid], "Part – III" [Requisite tender fee as indicated in the tender notice] and "Part – IV" [Integrity Pact] should be kept in a sealed envelope subscribing with the details of the tender No. and due date and time of submission and opening along with the name and address of the bidder.

In absence of "Part-III" for those tenderers who have downloaded the tender documents from our website and "Part –IV" envelope offer shall be rejected outright without any reference.

09. Part - I (Techno commercial Offer), "Part – III" (Tender fee) and "Part – IV" [Integrity Pact] will be opened on the due date of tender opening in the office of the CGM(MM), Commercial Block, L-III, Koyla Bhawan, Dhanbad –826 005 in presence of the authorised representative of the attending bidders.

NOTE.

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

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

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

10. Bharat Coking Coal Limited reserves the right to accept or reject any or all offers in part or in full without assigning any reason thereof.

11. Earnest Money:
   a) An Earnest Money of Rs.10,00,000.00 (Rs. Ten Lakhs) only in terms of Bank Draft of any schedule Bank drawn in favour of Bharat Coking Coal Limited payable at Dhanbad must accompany the Part I(Techno-commercial offer) otherwise offer shall be considered unresponsive.
   b) If it accompanies the Part-II(Price bid), it will be presumed that tenderer has not deposited the requisite Earnest money and their offer shall be considered unresponsive.
   c) For unsuccessful tenderer, EMD shall be refunded immediately after finalisation of the Tender.

12. Security money – Successful tenderer are required to deposit security money in the form of Bank Draft / Bank Guarantee of any schedule Bank of 10% value of the order(value means F.O.R destination price) within 15 days from the date of receipt of order. Bank Draft should be drawn in favour of "Bharat Coking Coal Limited" payable at Dhanbad. In case they fail to deposit the same, the order shall be cancelled and the case shall be processed to order elsewhere and the firm's performance is to be kept recorded for future dealings with them. The security will be refunded to the firm within 30 days of satisfactory execution of the contract. (Execution of the contract means successfully completion of supply against the order) For unsatisfactory performance and/or contractual failure the security money shall be forfeited. The earnest money deposit will be refunded to the firm after submission of requisite security deposit.
13. State/Central Govt. Organization /PSU - shall be considered for exemption from submission of EMD/Security money. Valid DGS&D/NSIC / Ancillary unit of BCCL registered (for tendered items) - shall be considered for exemption from submission of EMD/Security money, if they can submit these documents after duly signed by Notary Public.

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

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

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

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

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

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

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

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

(v). The complete offer should be typed in the letter head of the tender (Hand written quotation will be summarily rejected). If firm’s letter heads are not sufficient to accommodate technical and pricing details preferably bigger papers may be used, such sheets along with other pages of the offer should be signed and stamped by company’s authorised signatory.

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

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

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

(ix). The tenderer must submit separate sheet in Part ‘I’ (Techno-commercial offer) indicating any deviation in their offer from the Technical and Commercial terms specified/required.
Offer of those tenderers will not be considered commercially acceptable who did not successfully execute previous order placed on them by BCCL despite giving commercial notice and against whom penal action has been initiated for breach of contract.

(xi) Govt./ Undertaking / Ancillary Unit of BCCL for the tendered item, are exempted from paying tender fee.

(xii) Bidders for the items requiring DGMS approval shall have to submit copy of DGMS approval with latest validity extension, if any. They will also submit copy of valid BIS license (if applicable). These documents will also be duly authenticated by the bidders (stamped and signed) and attested by the court of Notary Public.

(xiii) If L1 tenderer do not have adequate capacity to supply full quantity tendered, the uncovered quantity order may be distributed to L-2 tenderer at L-1 rate. Similar process of counter offering L-1 rate to L-3 tenderer, L-4 Tenderer and so on and placement of order for their offered quantity subject to matching L-1 rate will continue till the full requirement is covered for supply within the specified delivery period.

IMPORTANT MANDATORY NOTE FOR BIDDERS IN RESPECT OF INTEGRITY PACT DOCUMENTS TO BE SIGNED:

BIDDERS ARE REQUIRED TO SUBMIT INTEGRITY PACT WITH BCCL DULY SIGNED AND STAMPED IN ALL PAPERS AS PER THE FORMAT GIVEN AT ANNEXURE - E IN ANOTHER SEPARATE ENVELOPE CONFIRMING THAT ALL THE TERMS AND CONDITIONS ARE ACCEPTABLE TO THEM, NON-SUBMISSION OF INTEGRITY PACT AMOUNTS TO NON-QUALIFICATION AND NO FURTHER EVALUATION OF OFFER SHALL BE DONE WITHOUT ASSIGNING ANY REASON BY BCCL.

Notwithstanding anything said above, BCCL reserves the right to follow any guideline or instruction received from the Government or any statutory bodies from time to time.

Encl: As above

Yours faithfully

For & on behalf of Bharat Coking Coal Limited.
GENERAL TECHNICAL SPECIFICATIONS FOR STANDARD HEIGHT LOADERS WITH GATE END BOX ALONG WITH SPARE PARTS

SCOPE:
1. The specification covers design, manufacture, supply erection and commissioning requirement of loaders for use in coal faces for the purpose of loading coal. The machines will be required to work in underground coal faces to scoop and load run of mine coal into transport requirement.
2. Wholly or largely indigenous equipments complying with the requirement and standards contained in this specification will be considered. The tenderers shall offer only such equipment that has been proved in service either in coal mines of CIL or its subsidiary. Companies or as per acceptability criteria and that has the approval of Directorate General of Mines Safety, Dhanbad, India.

SERVICE CONDITION:
3. The machine is required in drivage of gallery heading or in depillaring section in UG gassy coal mines and to load the coal/shale/hard sand stone etc. It should be able to work satisfactorily and give guaranteed performance under heavy dust laden atmosphere with ambient temperature of up to 45 degree C(max) with a relative humidity of 98%(MAX) present.
4. The working seam height available will be around 2.2m and above and the gallery size of about 4.2 m width. The machine should be able to negotiate sharp right angle turns without repeated manouevring.
5. The machine will normally be deployed in mines having working gradients of 1 in 6 including cross gradient of 1 in 8. However at some mines working gradients of 1 in 4 may also have to be tackled and the machines will have to be designed to suit such conditions. The track pads should be designed in a manner(e.g. Grouser pads) that it should have adequate grip on the floor that does not slip down the gradient.

GENERAL DESCRIPTION OF THE MACHINE:
6. The machine should compact low profile narrow wheel based crawler mounted manouevrable and stable with sufficient ground clearance. The engineering design should ensure low center of gravity, heavy duty construction, capable of being easily and quickly maintained and inspected. The design should be such that fittings and dismantling for the purpose of maintenance of booms, ram cylinder and buckets or other sub assemblies should be easy and quickly at the working face.
7. The machine should be electro hydraulically powered so as to ensure smooth operation & control. All electrical should be flameproof with approval from DGMS, Dhanbad for use in Indian gassy coal mines and should be ISI marked. The electrical should be suitable for voltage 525V +/- 10% 3 phase, 50Hz. The operating levers and controls should be conveniently located for the machine operator. The operator should be able to see properly all round the machine so that traveling and loading safety is ensured. All the operations should preferably be done through hydraulic transmission arrangements and should be designed for maximum rated load capacity of the machine.
8. The hydraulic fluid for operation should be as per DGMS condition and only approved type FRHF will be used. The machine should be compatible with FRHF (HFB–68). The oil should be non–toxic and non inflammable. The capacity of hydraulic oil tank should be sufficiently large so that the hydraulic system does not get abnormally heated during the operation of the machine and does not cause any discomfort to the operator.

The heat exchanger machine unit should be liberally designed (at least 25% more than the general design). Keeping in view the high ambient temperature as specified earlier.
9. The machine should be equipped with sufficiently rated electric motor and hydraulic system for continuous operation of the machine 6 hours in a shift three shifts daily and about 365 days in a year.
10. The basic machine will have to be designed to suit loading bucket for Side Discharge Bucket equipped with bi-directional chain conveyor.

11. The bucket shall be so designed as to ensure that 1 Cum of Mineral can be scooped & transported with minimum spillage. Bucket should be designed for rugged duty condition and easily replaceable.

12. At places the machine may encounter water up to 250mm. Hence the electrical motor and other sensitive components should be suitably located / protected.

13. Power take off point should be provided with the machine for other small hydraulic equipments.

14. As per the decision during the meeting in DGMS on 30.11.2000 the suction strainer will be of 60mesh.

SAFETY FEATURES OF THE MACHINE:
15. Starting arrangement through pilot circuit/switch should be provided with the machine keeping the gate end box at far end.

16. Low fluid level cut off and high fluid temperature cut off switches should be provided with the machine. Adjustable temperature cut off switch between 65-75 degree C should be provided. The design of the equipment and the cooling system must ensure that the temperature of the fluid does not exceed the limiting temperature value which will be generally kept at 65 degree C as per IS:14480 & IS:10532 (P-II). It is to be ensured that with continuous operation of the machine at full load under the service condition as mentioned para 10 & 12 there will be no over heating of the system i.e above 65 degree C with frequent trippings.

17. Hose fail safe brake should be provided with the machine. The hoses should be of non inflammable type complying with BCS-174-1992 with latest amendment and ISO 6805-1984 hose fitting should be confirming to NCB-638-1978.

18. The machine should be provided with suitable lights both at front and rear ends to ensure good visibility. Entire lighting arrangement should be suitable for 12V/24V electric supply and all the electrical fittings used should be of FLP type, ISI marked and approved by DGMS(India). The bulb should be replaceable type.

19. The machine should be provided with DGMS approved suitable audio visual Alarm system. It should work automatically in forward / reverse movement. The tenderer should describe the arrangements provided with the machine.

20. Self sealing hydraulic oil filling arrangement should be provided to prevent ingress of dirt when topping up or filling hydraulic system.

21. The machine should have provision of lock and key to prevent unauthorized operation.

22. The machine should have provision of suitable canopy.

23. Suitable traction brake arrangement should be provided so that the machine will not roll down when parked on gradient.

24. TECHNICAL AND DIMENSIONAL PARAMETERS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall length of the machine</td>
<td>5000 mm (Maxm.)</td>
</tr>
<tr>
<td>Width of the machine including Bucket</td>
<td>1800 mm (Maxm.)</td>
</tr>
<tr>
<td>Height over canopy</td>
<td>1800 mm to 2200 mm (adjustable)</td>
</tr>
<tr>
<td>Ground clearance</td>
<td>180mm</td>
</tr>
<tr>
<td>Bucket capacity</td>
<td>1 Cum (Min.)</td>
</tr>
<tr>
<td>Track width</td>
<td>300 mm(min)</td>
</tr>
<tr>
<td>Ground Pressure</td>
<td>10 N/Cm sq(Max.)</td>
</tr>
<tr>
<td>Speed</td>
<td>3 km/ Hr.(Max.) preferably variable speed</td>
</tr>
</tbody>
</table>
Discharge Height of Bucket: 2700 mm (Approx)

Minimum turning radius: Should negotiate sharp right angle turning without repeated Manoeuvering.

Gradient: 1 in 4/1 in 8 cross gradient.

Electrical: Please see annexure A-1b, A-1c for Motor and Starter.

25. The Tenderer must certify that:
   i) Hydraulic hoses only DGMS approved type will be fitted and the end fittings will be done by only the approved assemblers.
   ii) Only DGMS approved Fire Resistant Hydraulic Fluid will be used in the SDL’s (Type and make will be indicated).

26. Along with each machine the following items shall be supplied.
   a) Tool Kit (to be described in the offer)
   b) Operation and maintenance Manual – 2 copies.
   c) Illustrated spares list - AS PER SPECIAL NOTE ON SPARES
   d) Illustrated catalogue of the original maker of major components like hydraulic pump, motor etc.

27. Copies of DGMS approval for the SDL must be enclosed with the offer.

28. Recommended list of spares for two years working shall be enclosed with the offer - AS PER SPECIAL NOTE ON SPARES.

29. The tenderer must submit the technical information in the format Annexure – A 1a attached. Failure to submit the data may result in disqualification as technically incomplete/incompetent offer.

30. The tender must submit with his offer illustrated pamphlet describing salient points. A drawing giving machine dimensions clearance, tipping height (min/max) turning radius etc must be enclosed with the offer.

**SIDE DISCHARGE LOADER**

**ANNEXURE -A 1a**

Proforma to be submitted by the Tenderer.

1. Name of the Firm.
2. Name of the Collaborators & address.
3. Model / Type No.
5. Overall length (MM).
6. Overall width (MM).
7. Height (Over canopy (MM)).
8. Track pad/width.
   a) Grouser Pad
   b) Flat Pads.
10. Weight with bucket etc (Kgs).
11. Max. tramming speed (M/s).

12. a) Type of Hydraulic Pump
    b) Make of Hydraulic Pump
    c) capacity of Pumps (lps)
    d) Pressure of pump kg/sq/cm.
13. a) Type of Hydraulic Motor
(Traction, Fan, Bucket, Chain- conveyor)

b) Make of Hydraulic Motor
c) Capacity of Hydraulic Motor

14. Type of oil / fluid used.
15. Type of oil cooler and heat.
   Dissipation capacity( K. watts)
16. Capacity of Tank(Litres)
17. Discharge mechanism( please describe in detail)
18. % by value of imported components.
19. Light front/rear
20. Audio visual Alarm
21. Safety features:
   a) Safe filling arrangement
   b) High oil temperature cut off
   c) Low oil level cut off
   d) Canopy
   e) Hose fail safety.
   f) Power take off provision at what pressure and at what Lps.
22. Gradient on which vehicle will
    Slide/roll down by itself
GENERAL TECHNICAL SPECIFICATION FOR FLAME PROOF MOTOR FOR SDL

1. The motors are required to be flame proof: Gr-1 Gasses confirming to the requirement of IS:2148, 325, 3682 and other relevant Indian Standards.

2. The motors shall be of DGMS approved type and shall be ISI marked.

3. The system voltage is 525 volts with fluctuation +/- 10%, 50Hz +/- 3%, 3 phase

4. Earthing system – Restricted Neutral

5. The motors shall be suitably rated for the working conditions in underground coal Mines, ambient temperature 45°C (Max) and 98%, RH. It is the responsibility of the equipment manufacturer to ensure that the motors selected is properly rated for the environmental as well as duty condition.

6. The motors have to be supplied with class F or higher insulation.

7. The motors will have to be provided with suitable plug and socket arrangement for the attachment of trailing table conforming to type FT-7 /IS 14494/98 of 25/16 sq mm size.
GENERAL TECHNICAL SPECIFICATION FOR FLAME PROOF
AIR BREAK GATE END BOX

SCOPE

1. This specification document covers the design details, operating requirement constructional details and provide some guidelines for testing at works for procurement of a flame proof air break gate end box.

2. This specification shall be applicable for RESTRICTED NEUTRAL SYSTEM. This shall be located near the coal face.

3. This specification shall be read in conjunction with clause no. 23 i.e. technical parameters.

STANDARD TO BE FOLLOWED:

4. The gate end box shall confirm to the following Indian standard specification:

   1) IS 2148
   2) IS 5833
   3) IS 5780

   For flame proof enclosures construction design intrinsic safety etc.

5. The design and operational features of the equipment offered shall comply with the provisions of the latest version of the following acts and statutory regulations.

   a) Indian Electricity Act.
   b) The Indian Electricity Rules.
   c) Fire Insurance Regulation.
   d) Regulation of DGMS(Dhanbad)

   The supplier shall make suitable modification, addition/alteration in the equipment wherever necessary to comply with the above mentioned acts rules/regulations.

6. Wherever service conditions laid down in this specifications differ from those in Indian Standard Specification, the conditions specified herein shall prevail and operating requirement:

7. Service: The gate end box shall be designed to operate SDL through flexible trailing cable.

DESIGN FEATURES:

8. The design of the gate end box shall be in accordance with the latest practice.

CONSTRUCTIONAL FEATURES:

9. The gate end box is a flame proof transportable, free standing and controlling switch-gear for the face machinery. It shall essentially consist of the following components:

   a) FLP Enclosure
   b) Bus Bar & Isolator
   c) Main Contactor
   d) Control Circuits
   e) Protective Devices
   f) Two Auxiliary tapings with suitable cable entry box for interlocking with face equipments.
   g) Incoming, outgoing and through going cable fittings.
   h) Busbar blacking cover.

ENCLOSURE:

10. The FLP enclosure shall be constructed as per IS: 2118-1968 and shall consist of 2 chambers. Bus bar chamber and contactor of main chamber. It shall be adopted for mounting skids for easy transport. The design of the enclosure shall be such as to facilitate two or more units to be combined without violating flameproof features.
BUSBAR AND ISOLATOR

11. The bus bar chamber shall accommodate 3 nos. of copper. Bus bar covered with heat shrunk PVC sleeves. Bus bar capacity 300 AMPS. The chamber shall also accommodate a triple pole OFF-load isolating switch with renewable contacts. The isolation switch shall have three position i.e. OFF, FORWARD and REVERSE. The operating handle of the isolators shall have the above positions marked clearly and permanently.

The purpose of the isolating switch is to isolate the power from the bus bar chamber to the contactor main chamber.

12. A bolted cover shall be provided on the bus bar chamber for the purpose of inspection, repair and maintenance of the bus bar and the isolator. A warning shall be permanently printed on the cover specifying not to open the cover unless the power to the bus bar are cut off elsewhere.

This shall be an electro magnetically operated triple pole contactor unit housed inside the contactor or main chamber of the enclosure. The contactor shall have:

i) Sliver tipped renewable contact tips and arcing contacts.
ii) Arc shields with adequate arc quenching arrangements.
iii) Arrangement for adjustment contact gaps and contact pressures for individual pair of contacts.
iv) The contactor shall be rated for AC-4 Duty and three times the full load current. The contacts and its operating mechanism shall be designed in such a way so as to prevent welding together of the fixed and moving contacts even under severe over current fault condition.

CONTROL CIRCUIT:

13. The control circuit shall be designed for (Local and Remote) control of the machinery. The circuits shall mainly consist of:

i) Potential Transformer adequate burden and voltage ratio operation of various relays and voltmeter.
ii) Contactor oil for the operation of the contactor unit.
iii) Pilot relay for energizing the contactor, coil by local / remote control arrangement.
iv) Various circuitary for the control and the pilot circuit shall be intrinsically safe.

PROTECTIVE DEVICES:

14. The gate end box shall have the following protective and safety devices.

i) Over current protection
3 nos. of Electro magnetically operated oil dashpot type over current relay with tripping current and time lag adjustability. The current adjustability should be related to the duty requirement of the motor to be controlled by the Gate End Box.
ii) SHORT CIRCUIT PROTECTION:
iii) EARTHING LEAKAGE PROTECTION
Suitable earth leakage protection has to be ensured in the Gate End Box depending upon restricted neutral system. The limiting current for ELR shall be 250 mA to 750 mA.
iv) **UNDER VOLTAGE PROTECTION / NO VOLTAGE PROTECTION:**
Under volt/no volt protection should be provided with manual restricting facility.

v) **PILOT CORE PROTECTION:**
Means shall be provided so that in case of a short circuit between earth and pilot core in the outgoing side, the contactor shall automatically open and stop the motor and the motor can not be started unless the fault is removed.

vi) **EARTH CORE PROTECTION:**
Means shall be provided so that the contactor will automatically open in the event of an open circuit or an undue increase in the resistance of the earth core of the outgoing cable.

vii) **Two Aux cable joint boxes for electrical interlocks with other face equipment.**

**INTERLOCKS:**
15) The following interlocks shall be provided.
   i) To prevent on load operation of the isolator means shall be provided so that first movement of the isolator lever towards to “OFF” direct when the contactors are “ON” shall open contactor before opening of the isolator contact.
   ii) The front cover of the main chamber shall be interlocked with isolator in such a way that it can not be opened unless the isolator is put in the OFF position and also the isolator can not be put in ON position unless the front cover is closed.
   iii) In case of accidental pulling out of the plug at either end of the trailing cable when the motor is running the contactor shall open discharge the cable before opening of the power pins of the plug thus preventing an open sparking.

16. **INCOMING AND OUTGOING CABLE FITTINGS:**
   i) **Incoming:** Two nos. of cable entry, one for incoming cable and the other for inter trunking and through going shall be provided. The incoming cable box shall be detachable cable sealing chamber with armor clamps so arranged that the cable box can be detached from the apparatus without cutting the cable or disturbing the components. The size of the cable box shall suit the type, grade and size of the incoming cable. The other entry shall be suitable for intrunking of the gate end box with similar unit or for taking out a through going cable, similar to the incoming box. If intrunking or through going is not required, an FLP blank could be bolted to the entry.

   ii) **Outgoing:** The type of the outgoing cable box shall be suitable for flexible trailing cable type FT – 7 conforming IS: 14494/98. Gate end box shall be fitted with an interlocked BS plug and socket coupling suitable for cable OD as per table-7 of IS: 14494/98 for FT-7 of 16 Sq-mm size.

**EARTHING:**
17. The gate end box is normally earthed through the armor and armour clamp of the cable box. In additional earthing arrangement shall be provided on the body of the box both at the incoming and outgoing side for the purpose of bonding the armor of the cable with the body of the box by means of copper conductor.

**FRONT FACE:**
18) The front face shall have the following:
   a) Ammeter
   b) Local start stop switch.
   c) E/L fault trip indicator
   d) E/L protective device Test and reset switch.
PAINTING:
19. The enclosure shall be cleaned, derusted, degreased, coated with one coat of primer and painted with anticorrosive paint both inside and outside.

TESTS:
20. The tenderer must ensure that stage inspection and routine test shall be carried out in presence of purchaser's representative if required.

DRAWING AND DOCUMENTS:
21. Drawing and documents are to be supplied.

DEVIATION:
22. Deviation, if any, from this specification shall be clearly indicated in the offer.

23. TECHNICAL PARAMETERS
   a) Voltage 525 V +/- 10%
   b) Busbar capacity – 300A
   c) No. of phases -3
   d) Frequency 50HZ +/- 3%
e) starter to suit rating of 37KW to 75KW

IMPORTANT TERMS:
1. All spares (Except FRHE and Trailing Cables) /assemblies/sub-assemblies will be supplied free of cost by the tenderer during the Guarantee/warranty period for achieving the minimum availability percentage.

2. After expiry of 5th year, BCCL will have option to retain or return the unutilized spare parts in full or part quantity. The balance spare parts will be taken by supplier on book value.

3. In case any additional spares / assembly / sub assemblies are required for achieving desired level of availability during 2nd to 5th year, over and above the recommended list, they will have to supply the same free of cost.

SPECIAL NOTES ON SPARES AND OTHER TERMS:
1. The tenderer must quote for spares recommended for 2nd to 5th year of operations required after Warranty period. The prices of spares to be firm for 5 years. In case any additional spares are required during 2nd to 5th year over and above the recommended list submitted by the manufacturer, they will have to supply the same free of cost. Order shall however, be placed for the equipment along with spares for the four years(2nd to 5th year) with deferred delivery. As such, the bidders must quote for the individual, type SDLs (i.e. Standard height and Low-height) along with 2nd, 3rd, 4th and 5th year spares separately for the lot.

   Following consumable items shall be kept out of the scope of spares:-
   1) Lubricants (FRHF) 2) Trailing Cable.

   PRICE-COMPARISION:-
   2. Lowest rate will be arrived by computing total landed rate of the equipments along with landed rates of spares for the machine for 2nd to 5th year. Total landed price will thus be arrived separately for standard height and low-height along with respective year wise spares(for 2nd to 5th year operation).

   The spare parts are to be supplied in lot. In case the order is split, quantity of spares prorata reduction shall be made in the quantity of spares.
DELIVERY TERMS:

For Equipment:

3. To supply at least 05 machines within 60 days from the date of receipt of order and balance to be completed @ 10 nos per month thereafter. However, tenderer may offer improved/early delivery Schedule.

For Spares:

Against 2nd year operation – Supply shall be effected just after expiry of warranty period (but not later than 15 days of the expiry).

Against 3rd year operation – Supply shall be effected after end of the 2nd year (but not later than 15 days into 3rd year).

Against 4th year operation – Supply shall be effected after end of the 3rd year (but not later than 15 days into 4th year).

Against 5th year operation – Supply shall be effected after end of the 4th year (but not later than 15 days into 5th year).

4 PERFORMANCE BANK GUARANTEE:

The Successful tenderer on whom the order will be placed, shall have to furnish Bank Guarantee towards performance guarantee for 10% of the ordered value executed by any Nationalised / Schedule Bank on a non-judicial Stamp paper of requisite value on standard format of BCCL. The Bank Guarantee should remain valid for 5 years from the date of receipt and acceptance of the equipment. The performance BG furnished by supplier against individual machine will be irrevocable and unconditional and BCCL shall have the powers to invoke it notwithstanding any dispute or difference between supplier and BCCL pending before any court, tribunal, arbitrator or any other authority. The performance BG shall be submitted before releasing the 80% payment as per payment terms.

5 GUARANTEED AVAILABILITY:

The Availability percentage of machine will be assessed over a period of calendar 12 months based on the following formula:

Availability percentage = \( \frac{A - (M + D)}{A} \times 100 \)

A – Available hours = 365 days x 24 hrs. = 8760 hours. (for a year)

M – Maintenance hours.

D – Break-Down hours-The recorded number of hours during which the machine is under B/D. The recording starts from the moment it goes under breakdown and will end the moment the machine is made operational after repairs.

a) The tender shall ensure that availability of each machine shall not be less than as specified for a period of 60 months from the accepted date of commissioning. During the period of 60 months, no rehabilitation will be allowed. The penalty for low performance will be calculated on landed basis i.e. basic price + ED+ST+ Transportation charges etc. will be recovered, if required from the performance BG.

<table>
<thead>
<tr>
<th>Years</th>
<th>% age availability</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 2</td>
<td>85</td>
<td>No rehabilitation of machine will be allowed during the period of 05 years</td>
</tr>
<tr>
<td>3rd.</td>
<td>85</td>
<td>Allowed during the period of 05 years</td>
</tr>
<tr>
<td>4th.</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td>5th.</td>
<td>77</td>
<td></td>
</tr>
</tbody>
</table>
This guarantee shall become effective on the day on which the equipment is commissioned at site and to the entire satisfaction to the Project officer. This guaranteed availability shall remain effective for 60 months from the date of commissioning irrespective of the hours operated by the equipment during this period.

Maintaining a log book for each shift wherein the working Hrs, breakdown Hrs and maintenance Hrs. etc. shall be recorded. All machines should be provided with hrs. meter. This record will be available for examination and signature by the supplier’s representative.

6. PENALITY CLAUSE:-

For every 1% fall in availability below the specified availability during the period of 60 months, 1% of the full cost of the machine will be deducted as penalty. In case fall in % age availability exceeds 10%, the equipment will be rejected outrightly and the tenderer will have to refund the full amount of the machine.

7. Acceptability Criteria:-

Past experience list shall be enclosed giving details of SDLs supplied, capacity/KW, customers names, year of supply etc. The essential acceptability criteria for the tenderer are as follows:-

   a) They must have supplied sufficient numbers (at least 4 nos.) of SDLs. Proof of supply must be enclosed with tender (self attested order copy should be enclosed).
   b) Performance of supplied SDLs should be enclosed. A certificate from the customer that machines have worked satisfactorily should be submitted.

8. The tenderer must have Dhanbad based depot for spares and service facilities with adequate competent service personnel and support Staff.

9. In case the successful bidder does not have such facility at Dhanbad they have to establish the same before the first lot of machine is delivered.

10. Exemptions for calculation of availability % age :-

   a) Damage due to accident or otherwise if it is established that damage has occurred due to operation fault.
   b) Natural disaster.
   a) Lack of accessibility to the Equipment.
   b) Theft/Pilferage of Equipment parts.
   c) Strike or stoppage of work by the mines personnel.

11. OTHER TERMS:-

   a) The tenderer must disclose the source and type of major components/sub-assemblies to be fitted in the machine. The Sub-assemblies/components should be of proven nature in respect of bought out items. The model number and make along with name of the country of origin should be given in case of imported nature of item.
   b) Indigenous components/spares, which are used, should be of proven nature in Indian Mining condition.
   c) The tenderer must submit the technical information(Annexure-A1). Failure to submit the data may result in disqualification as technically incomplete offer.
   d) Tenderer must submit with his offer illustrated pamphlets describing salient features. A drawing giving machine dimensions, clearance, tipping heights (Min/Max.), turning radius hydraulic circuits, etc. must be enclosed with the offer.
   e) Along with each machine the following items shall be supplied.
      - Tool Kit (to be described in the offer).
- Manufacturer should furnish copy of valid DGMS approval for use of equipment in the underground mine including all FLP electricals.
- The manufacturer will render all necessary assistance in commissioning, training the operators for operation and will ensure for the satisfactory operation for the said period.
- Past experience list shall be enclosed giving details of standard height, Low Height SDLs & low height SDLs with remote control supplied, Customer’s Name, year of supply, copy of orders executed etc. shall be furnished along with the offer.

12. WARRANTY / GUARANTEE:
The tenderer shall guarantee that the machines will give the rated performance /availability, and will undertake to carry out all repairs, replacement modification FREE OF COST and in no case beyond a period of one month. Warranty / Guarantee shall be counted from the date which shall be 12 months from date of commissioning or 18 months from date of receipt and acceptance.
GENERAL TECHNICAL SPECIFICATIONS FOR LOW HEIGHT SIDE DISCHARGE LOADERS WITH GATE END BOX ALONG WITH SPARE PARTS

SCOPE:
1. The specification covers design, manufacture, supply erection and commissioning requirement of loaders for use in coal faces for the purpose of loading coal. The machines will be required to work in underground coal faces to scoop and load run of mine coal into transport requirement.
2. Wholly or largely indigenous equipments complying with the requirement and standards contained in this specification will be considered. The tenderers shall offer only such equipment that has been proved in service either in coal mines of CIL or its subsidiary. Companies or as per acceptability criteria and that has the approval of Directorate General of Mines Safety, Dhanbad, India.

SERVICE CONDITIONS:
3. The machine is required in drivage of gallery heading or in depillaring section in UG gassy coal mines and to load the coal/shale/hard sand stone etc. It should be able to work satisfactorily and give guaranteed performance under heavy dust laden atmosphere with ambient temperature of up to 45 degree C(max) with a relative humidity of 98% (MAX) present.
4. The working seam height available will be around 1.8 m and above and the gallery size of about 4.2 m width. The machine should be able to negotiate sharp right angle turns without repeated manoeuvering.
5. The machine will normally be deployed in mines having working gradients of 1 in 6 including cross gradient of 1 in 8. However at some mines working gradients of 1 in 4 may also have to be tackled and the machines will have to be designed to suit such conditions. The track pads should be designed in a manner (e.g. Grouser pads) that it should have adequate grip on the floor that does not slip down the gradient.

GENERAL DESCRIPTION OF THE MACHINE:
6. The machine should compact low profile narrow wheel based crawler mounted manoeuverable and stable with sufficient ground clearance. The engineering design should ensure low center of gravity, heavy duty construction, capable of being easily and quickly maintained and inspected. The design should be such that fittings and dismantling for the purpose of maintenance of booms, ram cylinder and buckets or other sub assemblies should be easy and quickly at the working face.
7. The machine should be electro hydraulically powered so as to ensure smooth operation & control. All electrical should be flameproof with approval from DGMS, Dhanbad for use in Indian gassy coal mines and should be ISI marked. The electrical should be suitable for voltage 525V +/- 10% 3 phase, 50Hz. The operating levers and controls should be conveniently located for the machine operator. The operator should be able to see properly all round the machine so that traveling and loading safety is ensured. All the operations should preferably be done through hydraulic transmission arrangements and should be designed for maximum rated load capacity of the machine.
8. The hydraulic fluid for operation should be as per DGMS condition and only approved type FRHF will be used. The machine should be compatible with FRHF (HFB –68). The oil should be non – toxic and non inflammable. The capacity of hydraulic oil tank should be sufficiently large so that the hydraulic system does not get abnormally heated during the operation of the machine and does not cause any discomfort to the operator.

The heat exchanger machine unit should be liberally designed (at least 25% more than the general design). Keeping in view the high ambient temperature as specified earlier.
9. The machine should be equipped with sufficiently rated electric motor and hydraulic system for continuous operation of the machine 6 hours in a shift three shifts daily and about 365 days in a year.
10. The basic machine will have to be designed to suit loading bucket for Side Discharge Bucket equipped with bi- directional chain conveyor.
11. The bucket shall be so designed as to ensure that 1 Cum of Mineral can be scooped & transported with minimum spillage. Bucket should be designed for rugged duty condition and easily replaceable.
12. At places the machine may encounter water up to 250mm. Hence the electrical motor and other sensitive components should be suitably located / protected.
13. Power take off point should be provided with the machine for other small hydraulic equipments.
14. As per the decision during the meeting in DGMS on 30.11.2000 the suction strainer will be of 60 mesh.

SAFETY FEATURES OF THE MACHINE:
15. Starting arrangement through pilot circuit/switch should be provided with the machine keeping the gate end box at far end.
16. Low fluid level cut off and high fluid temperature cut off switches should be provided with the machine. Adjustable temperature cut off switch between 65-75 degree C should be provided. The design of the equipment and the cooling system must ensure that the temperature of the fluid does not exceed the limiting temperature value which will be generally kept at 65 degree C as per IS: 14480 & IS: 10532 (P-II). It is to be ensured that with continuous operation of the machine at full load under the service condition as mentioned para 10 & 12 there will be no over heating of the system i.e above 65 degree C with frequent trippings.
17. Hose fail safe brake should be provided with the machine. The hoses should be of non inflammable type complying with BCS-174-1992 with latest amendment and ISO 6805-1984 hose fitting should be confirming to NCB-638-1978.
18. The machine should be provided with suitable lights both at front and rear ends to ensure good visibility. Entire lighting arrangement should be suitable for 12V/24V electric supply and all the electrical fittings used should be of FLB type, ISI marked and approved by DGMS (India). The bulb should be replaceable type.
19. The machine should be provided with DGMS approved suitable audio visual Alarm system. It should work automatically in forward / reverse movement. The tenderer should describe the arrangements provided with the machine.
20. Self sealing hydraulic oil filling arrangement should be provided to prevent ingress of dirt when topping up or filling hydraulic system.
21. The machine should have provision of lock and key to prevent unauthorized operation.
22. The machine should have provision of suitable canopy.
23. Suitable traction brake arrangement should be provided so that the machine will not roll down when parked on gradient.

24. TECHNICAL AND DIMENSIONAL PARAMETERS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall length of the machine</td>
<td>5000 mm (maxm.)</td>
</tr>
<tr>
<td>(Bucket in roll back position)</td>
<td></td>
</tr>
<tr>
<td>Width of the machine including</td>
<td></td>
</tr>
<tr>
<td>Bucket</td>
<td>1800 mm (approx.)</td>
</tr>
<tr>
<td>Height over canopy</td>
<td>1300- 1500 mm approx.(adjustable)</td>
</tr>
<tr>
<td>Ground clearance</td>
<td>150mm (approx.)</td>
</tr>
<tr>
<td>Bucket capacity</td>
<td>1.0 Cum (Min.)</td>
</tr>
<tr>
<td>Track width</td>
<td>330 mm (approx)</td>
</tr>
<tr>
<td>Ground Pressure</td>
<td>10 N/Cm sq(Max.)</td>
</tr>
<tr>
<td>Speed</td>
<td>3 km/ Hr.(Max.) Preferably variable speed</td>
</tr>
<tr>
<td>Discharge Height of Bucket</td>
<td>1600 mm (Approx)</td>
</tr>
<tr>
<td>Conveyor</td>
<td></td>
</tr>
<tr>
<td>Minimum turning radius</td>
<td>should negotiate sharp right angle turning without repeated Manoeuvering.</td>
</tr>
<tr>
<td>Gradient</td>
<td>1 in 4/ 1in 8 cross gradient.</td>
</tr>
<tr>
<td>Electrical</td>
<td>Please see annexure A- 2b, A- 2c for</td>
</tr>
</tbody>
</table>
The Tenderer must certify that:

i) Hydraulic hoses only DGMS approved type will be fitted and the end fittings will be done by only the approved assemblers.

ii) Only DGMS approved Fire Resistant Hydraulic Fluid will be used in the SDLs (Type and make will be indicated).

Along with each machine the following items shall be supplied:

a) Tool Kit (to be described in the offer)

d) Operation and maintenance Manual – 2 copies.
d) Illustrated spares list - As per special note on spares.
d) Illustrated catalogue of the original maker of major components like hydraulic pump, motor etc.

Copy of currently valid DGMS approval for the SDL must be enclosed with the offer.

Recommended list of spares for two years working shall be enclosed with the offer – As per special note on spares.

The tenderer must submit the technical information in the format Annexure – A 2a attached. Failure to submit the data may result in disqualification as technically incomplete / incompetent offer.

The tender must submit with his offer illustrated pamphlet describing salient points. A drawing giving machine dimensions clearance, tipping height (min/max) turning radius etc must be enclosed with the offer.

**SIDE DISCHARGE LOADER**

**ANNEXURE -A 2a**

Proforma to be submitted by the Tenderer.

1. Name of the Firm.
2. Name of the Collaborators & address
3. Model / Type No.
4. Main Motor (KW)
5. Overall length (MM)
6. Overall width (MM)
7. Height (Over canopy (MM)
8. Track pad / width
9. Ground Pressure (KG/sq-CM)
   a) Grouser Pad
   b) Flat Pads.
10. Weight with bucket etc (Kg)
11. Max. Tramming speed (M/s)
12. a) Type of Hydraulic Pump
    b) Make of Hydraulic Pump
    c) Capacity of Pumps (lps)
    d) Pressure of pump kg/sq/cm.
13. a) Type of Hydraulic Motor
    (Traction, Fan, Bucket, Chain-conveyor)
    b) Make of Hydraulic Motor
    c) Capacity of Hydraulic Motor
14. Type of oil / fluid used.
15. Type of oil cooler and heat. Dissipating capacity (K. watts)
16. Capacity of Tank (Litres)
17. Discharge mechanism (please describe in detail)
18. % by value of imported components.
19. Light front/rear
20. Audio visual Alarm
21. Safety features:
   a. Safe filling arrangement
   b. High oil temperature cut off
   c. Low oil level cut off
   d. Canopy
   e. Hose fail safety.
   f. Power take off provision at what pressure and at what Lps.
22. Gradient on which vehicle will
    Slide/roll down by itself
GENERAL TECHNICAL SPECIFICATION FOR FLAME PROOF MOTOR FOR LOW HEIGHT SDL

1. The motors are required to be flame proof: Gr-1 Gasses confirming to the requirement of IS:2148, 325, 3682 and other relevant Indian Standards.

2. The motors shall be of DGMS approved type and shall be ISI marked.

3. The system voltage is 525 volts with fluctuation +/- 10%, 50Hz +/- 3%, 3 phase.

4. Earthing system – Restricted Neutral

5. The motors shall be suitably rated for the working conditions in underground coal Mines, ambient temperature 45°C (Max) and 98%, RH. It is the responsibility of the equipment manufacturer to ensure that the motors selected is properly rated for the environmental as well as duty condition.

6. The motors have to be supplied with class F or higher insulation.

7. The motors will have to be provided with suitable plug and socket arrangement for the attachment of trailing table conforming to type FT-7 /IS 14494/98 of 25/16 sq mm size.
GENERAL TECHNICAL SPECIFICATION FOR FLAME PROOF AIR BREAK GATE END BOX

SCOPE

1. This specification document covers the design details, operating requirement constructional details and provide some guidelines for testing at works for procurement of a flame proof air break gate end box.
2. This specification shall be applicable for RESTRICTED NEUTRAL SYSTEM. This shall be located near the coal face.
3. This specification shall be read in conjunction with clause no. 23 i.e. technical parameters.

STANDARD TO BE FOLLOWED:

4. The gate end box shall confirm to the following Indian standard specification .
   1. IS 2148
   2. IS 5833
   3. IS 5780

For flame proof enclosures construction design intrinsic safety etc.
5. The design and operational features of the equipment offered shall comply with the provisions of the latest version of the following acts and statutory regulations.
   a. Indian Electricity Act.
   b. The Indian Electricity Rules.
   c. Fire Insurance Regulation.
   d. Regulation of DGMS(Dhanbad)

The supplier shall make suitable modification, addition/alteration in the equipment wherever necessary to comply with the above mentioned acts rules/regulations.

6. Wherever service conditions laid down in this specifications differ from those in Indian Standard Specification, the conditions specified herein shall prevail and operating requirement.:  
7. Service : The gate end box shall be designed to operate SDL through flexible trailing cable.

DESIGN FEATURES :

8. The design of the gate end box shall be in accordance with the latest practice.

CONSTRUCTIONAL FEATURES:

9. The gate end box is a flame proof transportable, free standing and controlling switch-gear for the face machinery. It shall essentially consist of the following components:
   a. FLP Enclosure
   b. Bus Bar & Isolator
   c. Main Contactor
   d. Control Circuits
   e. Protective Devices
   f. Two Auxiliary tapings with suitable cable entry box for interlocking with face equipments.
   g. Incoming, outgoing and through going cable fittings.
   h. Busbar blacking cover.

ENCLOSURE :

10. The FLP enclosure shall be constructed as per IS: 2118-1968 and shall consist of 2 chambers. Bus bar chamber and contactor of main chamber. It shall be adopted for mounting skids for easy
transport. The design of the enclosure shall be such as to facilitate two or more units to be combined without violating flameproof features.

**BUSBAR AND ISOLATOR**

11. The bus bar chamber shall accommodate 3 nos. of copper. Bus bar covered with heat shrunk PVC sleeves. Bus bar capacity 300 AMPS. The chamber shall also accommodate a triple pole OFF-load isolating switch with renewable contacts. The isolation switch shall have three position i.e. OFF, FORWARD and REVERSE. The operating handle of the isolators shall have the above positions marked clearly and permanently.

The purpose of the isolating switch is to isolate the power from the bus bar chamber to the contactor main chamber.

12. A bolted cover shall be provided on the bus bar chamber for the purpose of inspection, repair and maintenance of the bus bar and the isolator. A warning shall be permanently printed on the cover specifying not to open the cover unless the power to the bus bar are cut off elsewhere.

This shall be an electro magnetically operated triple pole contactor unit housed inside the contactor or main chamber of the enclosure. The contactor shall have:

i) Sliver tipped renewable contact tips and arcing contacts.
ii) Arc shields with adequate arc quenching arrangements.
iii) Arrangement for adjustment contact gaps and contact pressures for individual pair of contacts.
iv) The contactor shall be rated for AC-4 Duty and three times the full load current. The contacts and its operating mechanism shall be designed in such a way so as to prevent welding together of the fixed and moving contacts even under severe over current fault condition.

**CONTROL CIRCUIT:**

13. The control circuit shall be designed for (Local and Remote) control of the machinery. The circuits shall mainly consist of:

i) Potential Transformer adequate burden and voltage ratio operation of various relays and voltmeter.
ii) Contactor oil for the operation of the contactor unit.
iii) Pilot relay for energizing the contactor, coil by local / remote control arrangement.
iv) Various circuitary for the control and the pilot circuit shall be intrinsically safe.

**PROTECTIVE DEVICES:**

14. The gate end box shall have the following protective and safety devices.

i) Over current protection
3 nos. of Electro magnetically operated oil dashpot type over current relay with tripping current and time lag adjustability. The current adjustability should be related to the duty requirement of the motor to be controlled by the Gate End Box.

ii) **SHORT CIRCUIT PROTECTION**

iii) **EARTHING LEAKAGE PROTECTION**

Suitable earth leakage protection has to be ensured in the Gate End Box depending upon restricted neutral system. The limiting current for ELR shall be 250 mA to 750 mA.

iv) **UNDER VOLTAGE PROTECTION /NO VOLTAGE PROTECTION:**

Under volt/no volt protection should be provided with manual restricting facility.

v) **PILOT CORE PROTECTION:**

Means shall be provided so that in case of a short circuit between earth and pilot core in the outgoing side, the contactor shall automatically open and stop the motor and the motor can not be started unless the fault is removed.

vi) **EARTH CORE PROTECTION:**

Means shall be provided so that the contactor will automatically open in the event of an open circuit or an undue increase in the resistance of the earth core of the outgoing cable.

vii) Two Aux cable joint boxes for electrical interlocks with other face equipment.

**INTERLOCKS:**

15) The following interlocks shall be provided.

i) To prevent on load operation of the isolator means shall be provided so that first movement of the isolator lever towards “OFF” direct when the contactors are “ON” shall open contactor before opening of the isolator contact.

ii) The front cover of the main chamber shall be interlocked with isolator in such a way that it can not be opened unless the isolator is in the OFF position and also the isolator can not be put in ON position unless the front cover is closed.

iii) In case of accidental pulling out of the plug at either end of the trailing cable when the motor is running the contactor shall open discharge the cable before opening of the power pins of the plug thus preventing an open sparking.

16. **INCOMING AND OUTGOING CABLE FITTINGS:**

i) Incoming: Two nos. of cable entry, one for incoming cable and the other for inter trunking and through going shall be provided. The incoming cable box shall be detachable cable sealing chamber with armor clamps so arranged that the cable box can be detached from the apparatus without cutting the cable or disturbing the components. The size of the cable box shall suit the type, grade and size of the incoming cable. The other entry shall be suitable for intrunking of the gate end box with similar unit or for taking out a through going cable, similar to the incoming box. If intrunking or through going is not required, an FLP blank could be bolted to the entry.

ii) Outgoing: The type of the outgoing cable box shall be suitable for flexible trailing cable type FT – 7 conforming IS: 14494/98. Gate end box shall be fitted with an interlocked BS plug and socket coupling suitable for cable OD as per table-7 of IS: 14494/98 for FT-7.

**EARTHING:**

17. The Gate end box is normally earthed through the armor and amour clamp of the cable box. In additional earthing arrangement shall be provided on the body of the box both at the incoming and outgoing side for the purpose of bonding the armor of the cable with the body of the box by means of copper conductor.

**FRONT FACE :**

18) The front face shall have the following:

a. Ammeter

b. Local start stop switch.

c. E/L fault trip indicator
d. E/L protective device Test and reset switch.

PAINTING:
19. The enclosure shall be cleaned, derusted, degreased, coated with one coat of primer and painted with anticorrosive paint both inside and outside.

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   a) Voltage 525 V +/- 10 %
   b) Busbar capacity – 300A
   c) No. of phases -3
   d) Frequency 50HZ +/- 3%
   e) Starter to suit rating of 37KW to 75 KW

IMPORTANT TERMS:
1. All spares (Except FRHE and Trailing Cables) /assemblies/sub-assemblies will be supplied free of cost by the tenderer during the Guarantee/warranty period for achieving the minimum availability percentage.
2. After expiry of 5th year, BCCL will have option to retain or return the unutilized spare parts in full or part quantity. The balance spare parts will be taken by supplier on book value.
3. In case any additional spares / assembly / sub assemblies are required for achieving desired level of availability during 2nd to 5th year, over and above the recommended list, they will have to supply the same free of cost.

SPECIAL NOTES ON SPARES AND OTHER TERMS.
1. The tenderer must quote for spares recommended for 2nd to 5th year of operations required after Warranty period. The prices of spares to be firm for 5 years. In case any additional spares are required during 2nd to 5th year over and above the recommended list submitted by the manufacturer, they will have to supply the same free of cost. Order shall however, be placed for the equipment along with spares for the four years(2nd to 5th year) with deferred delivery. As such, the bidders must quote for the individual, type SDLs (i.e. Standard height and Low-height) along with 2nd, 3rd, 4th and 5th year spares separately for the lot.
   Following consumable items shall be kept out of the scope of spares:-
   1) Lubricants (FRHF) 2) Trailing Cable.

PRICE-COMPARISION:
2. Lowest rate will be arrived by computing total landed rate of the equipments along with landed rates of spares for the machine for 2nd to 5th year. Total landed price will thus be arrived separately for standard height and low-height along with respective year wise spares (for 2nd to 5th year operation).
The spare parts are to be supplied in lot. In case the order is split, quantity of spares prorata reduction shall be made in the quantity of spares.

**DELIVERY TERMS:-**

For Equipment:

3. To supply at least 05 machines within 60 days from the date of receipt of order and balance to be completed @ 10 nos per month thereafter. However, tenderer may offer improved/early delivery Schedule.

For Spares:

Against 2nd year operation – Supply shall be effected just after expiry of warranty period (but not later than 15 days of the expiry).

Against 3rd year operation – Supply shall be effected after end of the 2nd year (but not later than 15 days into 3rd year).

Against 4th year operation – Supply shall be effected after end of the 3rd year (but not later than 15 days into 4th year).

Against 5th year operation – Supply shall be effected after end of the 4th year (but not later than 15 days into 5th year).

**4. PERFORMANCE BANK GUARANTEE:-**

The Successful tenderer on whom the order will be placed, shall have to furnish Bank Guarantee towards performance guarantee for 10% of the ordered value executed by any Nationalised / Schedule Bank on a non-judicial Stamp paper of requisite value on standard format of BCCL. The Bank Guarantee should remain valid for 5 years from the date of receipt and acceptance of the equipment. The performance BG furnished by supplier against individual machine will be irrevocable and unconditional and BCCL shall have the powers to invoke it notwithstanding any dispute or difference between supplier and BCCL pending before any court, tribunal, arbitrator or any other authority. The performance BG shall be submitted before releasing the 80% payment as per payment terms.

**5. GUARANTEED AVAILABILITY :-**

The Availability percentage of machine will be assessed over a period of calendar 12 months based on the following formula:

\[
\text{Availability percentage} = \frac{A - (M + D)}{A - M} \times 100
\]

A – Available hours = 365 days x 24 hrs. = 8760 hours. (for a year)

M – Maintenance hours.

D – Break-Down hours-The recording starts from the moment it goes under breakdown and will end the moment it goes under repairs.

The recorded number of hours during which the machine is under B/D, the machine is made operational after repairs.
a) The tender shall ensure that availability of each machine shall not be less than as specified for a period of 60 months from the accepted date of commissioning. During the period of 60 months, no rehabilitation will be allowed. The penalty for low performance will be calculated on landed basis i.e. basic price + ED+ST+ Transportation charges etc. will be recovered, if required from the performance BG.

<table>
<thead>
<tr>
<th>Years</th>
<th>% age availability</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 2</td>
<td>85</td>
<td>No rehabilitation of machine will be Allowed during the period of 05 years</td>
</tr>
<tr>
<td>3rd.</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>4th.</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td>5th.</td>
<td>77</td>
<td></td>
</tr>
</tbody>
</table>

This guarantee shall become effective on the day on which the equipment is commissioned at site and to the entire satisfaction to the Project officer. This guaranteed availability shall remain effective for 60 months from the date of commissioning irrespective of the hours operated by the equipment during this period.

Maintaining a log book for each shift wherein the working Hrs, breakdown Hrs and maintenance Hrs. etc. shall be recorded. All machines should be provided with hrs. meter. This record will be available for examination and signature by the supplier’s representative.

6. PENALITY CLAUSE:-

For every 1% fall in availability below the specified availability during the period of 60 months, 1% of the full cost of the machine will be deducted as penalty. In case fall in % age availability exceeds 10%, the equipment will be rejected outrightly and the tenderer will have to refund the full amount of the machine.

7. Acceptability Criteria:-

Past experience list shall be enclosed giving details of SDLs supplied, capacity/KW, customers names, year of supply etc. The essential acceptability criteria for the tenderer are as follows:-

a) They must have supplied sufficient numbers (at least 4 nos.) of SDLs. Proof of supply must be enclosed with tender (self-attested order copy should be enclosed).
b) Performance of supplied SDLs should be enclosed. A certificate from the customer that machines have worked satisfactorily should be submitted.

8. The tenderer must have Dhanbad based depot for spares and service facilities with adequate competent service personnel and support Staff.

10. In case the successful bidder does not have such facility at Dhanbad they have to establish the same before the first lot of machine is delivered.

10. Exemptions for calculation of availability % age :-

a) Damage due to accident or otherwise if it is established that damage has occurred due to operation fault.
b) Natural disaster.
e) Lack of accessibility to the Equipment.
f) Theft/Pilferage of Equipment parts.
g) Strike or stoppage of work by the mines personnel.

11. OTHER TERMS:-

a) The tenderer must disclose the source and type of major components/sub-assemblies to be fitted in the machine. The Sub-assemblies/components should be of proven nature in respect of bought out items. The model number and make
along with name of the country of origin should be given in case of imported nature of item.

b) Indigenous components/spares, which are used, should be of proven nature in Indian Mining condition.

c) The tenderer must submit the technical information (Annexure-A1). Failure to submit the data may result in disqualification as technically incomplete offer.

d) Tenderer must submit with his offer illustrated pamphlets describing salient features. A drawing giving machine dimensions, clearance, tipping heights (Min/Max.), turning radius hydraulic circuits, etc. must be enclosed with the offer.

e) Along with each machine the following items shall be supplied.

- Tool Kit (to be described in the offer) 5 kgs hanheld grease gun to be provided with tool box.
- Manufacturer should furnish copy of valid DGMS approval for use of equipment in the underground mine including all FLP electricals.
- The manufacturer will render all necessary assistance in commissioning, training the operators for operation and will ensure for the satisfactory operation for the said period.
- Past experience list shall be enclosed giving details of standard height, Low Height SDLs & low height SDLs with remote control supplied, Customer’s Name, year of supply, copy of orders executed etc. shall be furnished along with the offer.

12. WARRANTY / GUARANTEE:
The tenderer shall guarantee that the machines will give the rated performance /availability, and will undertake to carry out all repairs, replacement modification FREE OF COST and in no case beyond a period of one month. Warranty / Guarantee shall be counted from the date which shall be 12 months from date of commissioning or 18 months from date of receipt and acceptance.
COMMERCIAL TERMS FOR EQUIPMENTS

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

   i) Name and address of the original Manufacturer along with full details of the contacts persons, Telephone No, Fax No., E. Mail address etc.
   ii) Brand name, Model and capacity of the equipment offered.
   iii) Details of order received giving the name of the buyer, their address and country, date of order and number of machines ordered and supplied. Specific details should be given regarding the machine supplied and running in India with full address of the user, so that the same can be verified if felt necessary.
   iv) Details of collaborations, if any.
   v) Details of After Sales Service to be provided, namely address of service depots, if any, strength of after sales service personnel and their qualifications and backgrounds.
   vi) Details of Training offered, if any.
   vii) Details of quality control measures/stage inspections carried out. Accreditation of any approved std. quality control institute or organization may be indicated certifying the quality system of the bidder.
   viii) Confirmation about spare parts support offered for the entire life of the machines.
   ix) A separate list of Tools and Tackles required for normal maintenance should be submitted.
   x) Details regarding location of the works. The purchaser reserves the right to inspect the works of the bidder. What are the facilities they will provide to carry out pre despatch inspection in stages of manufacturing process, if buyer wish to do so.
   xi) The commercial status of the offers received against this tender shall be determined after offsetting the amount payable towards VAT if applicable for which input credit is admissible to BCCL.
   xii) A statement certifying that the bidder accepts all the commercial terms and conditions of Bharat Coking Coal Limited given in this bid documents without any reservation what so ever.

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

   i) Rate (Prices) must be quoted FIRM & FOR Destination basis with the following break up.
      a) Ex-Works Price
      b) Freight, Insurance, Packing & Forwarding charges on lump-sum basis.
      c) Excise duty if applicable (It will be payable extra on Ex-works price basis)
      d) Sales Tax (It will be payable extra as applicable)

NOTE: - (1) **Excise Duty** - The legally applicable rate of Excise Duty should be clearly mentioned in the commercial bid (PART I) and the rate and the value in the price bid (PART-II). In case the price is stated to be inclusive of excise duty, the current rate included in the price must be indicated. If the tenderer is exempted from paying the excise duty, the same must also be confirmed with valid documentary evidence. In case the rate of excise duty varies with the turnover of the company, and the price is exclusive of excise duty, the tenderer shall have to specify the rate applicable to BCCL. If the tenderer fails to specify the exact rate of ED applicable, the maximum rate currently leviable shall be loaded on the price.

   (2) **Sales Tax / VAT** : The legally applicable rate of Sales Tax / VAT should be clearly mentioned in the commercial bid (PART-I) and the rate and value in the price bid (PART-II).
(3) The rate must be indicated both in figure and words. If there is difference between both, the amount appearing in words shall be taken for consideration.

ii) In case of direct import by us, price will be on F.O.B. delivery Port basis only. The Price must be on FIRM basis.

iii) In case ofImported stores and prices are in Indian rupees on FOR destination basis, only applicable sales tax and statutory local levies(if any) will be payable extra. The price must be on FIRM basis.

iv) Conditional discount including quantity discount will not be considered for comparative purpose. Cash discount or Prompt payment discount will also be treated in the same manner. However only unconditional discount will be taken into account for comparative evaluation. In case of F.O.B price all discount attracts custom duty etc. except trade discount.

v) In case of imported stores other than direct import by BCCL, the firm should quote FOR destination price in Indian rupees and firm shall give a certificate along with their offer of their Auditors certifying that they have paid Customs and other applicable Duties as per prevailing Customs Rates and refund if any shall be passed on to the buyer.

In case of Additional Requirement where buyer can avail the Project Concessional Custom Duty on the imported contents, you must indicate the following:

a) CIF value of the imported content, if any, both in Indian Rupees and in the specified foreign currency indicating the date of applicable exchange rate and the applicable rate of custom and other duties.

b) Rate of customs duty on imported component taken for computation of the prices - both for project concessional and for the normal rate.

A domestic manufacturer shall be considered as an indigenous manufacturer, if the equipment manufactured and offered by them against tender has indigenous material content cost plus labour content cost in excess of 30% of ex-works value of the equipment including all taxes and duties. This is to be certified by the auditors of the manufacturer.

2 (B) – Detail evaluation of financial bids.

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

<table>
<thead>
<tr>
<th>Approximate distance of dispatching Station from Consignee's end.</th>
<th>Percentage FOR dispatching station price regarding Freight.</th>
<th>Packing and Forwarding Charges</th>
<th>Transit Insurance Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above 2001 Km</td>
<td>5%</td>
<td>2%</td>
<td>¥%</td>
</tr>
<tr>
<td>1501Km - 2000 Km</td>
<td>4%</td>
<td>2%</td>
<td>¥%</td>
</tr>
<tr>
<td>1001 Km - 1500 Km</td>
<td>3%</td>
<td>2%</td>
<td>¥%</td>
</tr>
<tr>
<td>501 Km – 1000 Km</td>
<td>2%</td>
<td>2%</td>
<td>¥%</td>
</tr>
<tr>
<td>Below 500 Km</td>
<td>1%</td>
<td>2%</td>
<td>¥%</td>
</tr>
</tbody>
</table>
2. (B) (b) In case of Imports, the tenderers are required to quote on FOB delivery port basis. The total price will be estimated in the following manner to arrive at the CIF price & landed price of the import offers.

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

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

3. VALIDITY:- The offer must be valid for acceptance for a period of 180 days from the date of opening tender. Offers will not be permitted to be withdrawn during this period.

4. ULTIMATE CONSIGNEE:- The materials may be consigned to any of the depot of BCCL.

5. PRICE VARIATION: Only FIRM price shall be quoted. No price variation will be allowed during the pendency of the contract excepting for price fall clause.

6. PAYMENT TERM:-
   a) For indigenous supplies.
   80% value of each equipment and the accessories and 100% excise duty and full concessional ST/CST along with 100% transportation & insurances and other charges will be paid only within 30 days from the date of receipt of the equipment at the consignee end. The equipment should be accompanied with relevant dispatch documents like challan, Maker’s Test - Cum Inspection Certificate, Warranty Certificate, CIL/BCCL’s Inspection Certificate etc. This payment will be released only after receipt of required value of the Bank Guarantee towards performance. The validity of the Bank Guarantee shall be 05 years from the date of receipt and acceptance of the Equipments.

   Balance 20% payment shall be made within 30 days from the date of successful completion of erection, testing, commissioning and final acceptance of the equipment(along with accessories) at site upon presentation of a certificate from the project officer and duly countersigned by Technical Head to the effect that the equipment has been erected and commissioned to their entire satisfaction.

   b) For imported supplies.
   80% value of each equipment and the accessories will be paid only against Letter of Credit. The equipment should be accompanied with relevant dispatch documents.

   Balance 20% payment shall be made within 30 days of successful completion of erection, testing, commissioning and final acceptance of the equipment(along with accessories) at site upon presentation of a certificate from the project officer and duly countersigned by Technical Head to the effect that the equipment has been erected and commissioned to their entire satisfaction. It will be paid through foreign DD.

   Agency commission will be paid in Indian Rupee only. Clearly indicate the quantum of Agency Commission in the offer, if any.(For imported item where the price is on FOB Basis).

   c) For spares – 100% within 30 days from the receipt and acceptance of the materials by the consignee or from the date of receipt of bills, whichever is later by the consignee.

Note - No payment will be made for supply of incomplete equipment.
7. Either the Indian Agent on behalf of the foreign principal or the foreign principal may directly bid in a tender but not both.
   If an agent participates in a tender on behalf of one manufacturer, he should not quote on behalf of another manufacturer along with the first manufacturer for the same item.

**NOTE:** CLAUSE NO.2A(ii,iii,vi), 2B(b), 6(b) and 7 are not applicable for ADVERTISED DOMESTIC TENDER.

8. In case of indigenous supplier, Tenderers are required to furnish the following details/information in the techno-commercial bid Part-I for transferring the Money to the supplier’s account through “e-banking” while making payment.
   a. Name of the Bank.
   b. Name of the Branch with complete address.
   c. Party’s Account Style.
   d. Party’s nature of Account.
   e. Party’s Account Number.
   In absence of above details/information offer may be liable to be considered unresponsive.

9. REQUIRED DELIVERY SCHEDULE:
   As specified in the technical specification Annexure – A-1 and A-2.
   i) The delivery schedule quoted in the offer shall be firm and final. Delivery will be counted from the date of receipt of the order. Failure to supply the material in time may attract penalty as per clause No. 10

**Note:** Within the above mentioned specified delivery schedule bidder should be in a position to supply 50% of the total quantity/number otherwise their offer shall be considered as unresponsive.

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

   In the event of failure to deliver or dispatch the stores within the stipulated date/period in accordance with the samples and/or specification mentioned is the supply order, and in the event of breach of any terms and conditions mentioned in the supply order. Bharat Coking Coal Limited reserves the right:
   a) To recover from successful tenderer, as agreed liquidated damages, a sum not less than 0.5% (half percentage) of the price of the stores which successful tenderer has not been able to supply (for this purpose part of a unit supplied will not be considered) as aforesaid for each week or part of a week during which the delivery of such stores may be in arrears limited to 10%. Where felt necessary the limit of 10% can be increased to 15% at the discretion of BCCL.
   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 canceling the supply order in respect of consignment not yet due for supply or
   c) To cancel the supply order or a portion thereof, and if so desired to purchase the store at the risk and cost of the defaulting supplier and also
   d) To extend the period of delivery with or without penalty as may be considered fit and proper. The penalty, if imposed shall not be more than the agreed liquidated damages referred to in clause(a) above.
   e) To encash any Bank guarantee which is available for recovery of the penalty or
   f) To forfeit the security deposit full or in part.
   g) Whenever under the contract a sum of money is recoverable from and payable by the supplier, BCCL shall be entitled to recover such sum by appropriating, in part or whole by deducting any sum or which at any time thereafter may be due to the successful tenderer in this or any other contract with Bharat Coking Coal Ltd. or any subsidiary of Coal India Ltd. Should this sum be not sufficient to cover the full amount recoverable, the
successful tenderer shall pay BCCL on demand the remaining amount. The supplier shall not be entitled to any gain under this clause.

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

11. GUARANTEE/WARRANTY/PERFORMANCE BANK GUARANTEE
- As per technical specification. (Format of Performance Bank Guarantee is enclosed herewith as Appendix-I).

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

13. ERECTION & SUPERVISION
  The supplier shall be responsible for the erection and commissioning at no extra cost to the purchaser within 75 days of receipt of complete equipment at site. However, the purchaser will assist in providing necessary erection tools & tackles etc. and unskilled manpower for this purpose.

14. QUALITY CONTROL MEASURE
  The bidder shall furnish details of quality control measures being adopted by him, including any International / Indian standard being followed. The details should include the equipment and personnel employed for this purpose.

15. 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.

The bidder should confirm their acceptance of the above clauses.

16. FORCE MAJEURE CLAUSE
  If the execution of the contract/supply order is delayed beyond the period stipulated in the contract / supply order as a result of out-break of hostilities, declaration of an embargo / curfew or blockade or fire, flood, acts of nature or any other contingency beyond the supplier’s control due to act of God then BCCL may allow such additional time by extending the delivery period, as it considers to be justified by the circumstances of the case and its decision shall be final. If and when additional time is granted by BCCL the contract/supply order shall be read and understood as if it had contained from its inception the delivery date as extended. Further this clause state that:
a) The successful bidder will, in the event of his having to resort to this clause by a registered letter duly certified by the local Chamber of Commerce or statutory authority, the beginning and end of the causes of the delay, within fifteen days of the occurrence and cessation of such Force Majeure Conditions. In the event of delay lasting out of Force Majeure, BCCL will reserve the right to cancel the contract and provisions governing termination of contract, as stated in the bid documents will apply.
b) For delays arising out of Force Majeure, the bidder will not claim extension in completion date for a period exceeding the period of delay attributable to the causes of Force Majeure and neither BCCL nor the bidder shall be liable to pay extra costs provided it is mutually established that Force Majeure Conditions did actually exist.
c) If any of the force majeure conditions exists in the place of operation of the bidder even at the time of submission of bid, he will categorically specify them in his bid and state whether they have been taken into consideration in their quotations.

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

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

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

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

18. In case of placement of order, the supplier will be required to submit an assembly-wise parts catalogue to this office, in addition to other manuals as given in the Technical specifications.

For Chief General Manager(MM)
LETTER OF PERFORMANCE GUARANTEE.

1. Messers ------------------------------------------ a company having its office at -----------------------------------------------

--------------------------------------------hereinafter called the Seller has entered into a Contract No.--------------------------------------

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

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

4. We, Bank Ltd. further agree with the purchaser, that the purchaser, shall have the fullest liberty without our consent and without affecting in any manner no obligations hereunder to vary any of the terms and conditions of the said contract or to extend time of performance by the said seller(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the purchaser, against the said seller and to forbear or enforce any of the terms and conditions relating to the said contract and we shall not be relived from our liability by reason or any such variation or extension being granted to the said seller or for any forbearance act or omission on the part of the purchaser, or any indulgence by the purchaser to the said seller by any such matter or thing whatsoever which under the law relating to sureties would be for this provision have effect of an relieving us. The Bank further agrees that in case this guarantee is required for a longer period and it is not extended by the bank beyond the period specified above, the bank shall pay to this purchaser the said sum of ---------------- or such lesser sum as may than be due the purchaser and as the purchaser may demand.

5. We,---------------- Bank Ltd. lastly undertake not to revoke this guarantee during its currency except with the previous consent of the purchaser, in writing.

6. The Bank has under its constitution power to give this guarantee and Mr.-------------------Manager, who has signed it on behalf of the Bank has authority to do so.

7. This Bank Guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.

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

For ---------------- Bank Limited

Signature of the authorised person
for and on behalf of the Bank
ANNEXURE- “D”

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

1. Whether the tenderer is a Manufacturer                                 Yes/No
2. Whether the tenderer is a exclusively authorized marketing outlet of a manufacturer Yes/No
3. If the reply against(2) above is yes, then indicate name & full address of the Principal.
4. In case of (2) above whether the Principals Authorisation as Exclusive Authorised Marketing Outlet is enclosed with the offer Yes/No
5. Acceptance of 180 days offer’s validity period as per NIT Yes/No
6. Whether quoted prices are FIRM as per N IT. Yes/No
7. Whether Price quoted is on FOR destination basis as per NIT Yes/No
8. Acceptance of Payment terms as per NIT Yes/No
9. Acceptance of Liquidated damages & Risk purchase clause as per NIT. Yes/No
10. Acceptance of Price fall clause as per NIT. Yes/No

NOTE: NON -ACCEPTANCE OF ANY OF THE TERMS AND CONDITIONS MAY LEAD TO REJECTION OF OFFER.

SIGNATURE OF THE TENDERER
WITH SEAL & STAMP
TENDER NO.Put/

(1) For DGMS approved SDL 1.0 Cu.Mtr capacity Standard Height with gate end box along with spares.

<table>
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<tr>
<th>SL.NO</th>
<th>DESCRIPTION</th>
<th>UNIT OF MEASURE</th>
<th>QUANTITY REQD.</th>
<th>BASIC PRICE(EX-WORKS)</th>
<th>EXCISE DUTY</th>
<th>SALES TAX</th>
<th>PACKING FORWARDING CHARGES &amp; FREIGHT CHARGE</th>
<th>INSURANCE CHARGES</th>
<th>LANDED VALUE FOR 32 NOS MACHINES</th>
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ANNEURE - "C"
(2) DGMS approved SDL 1.0 Cu.Mtr capacity Low Height with gate end box along with spares.

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<th>BASIC PRICE(Ex-WORKS)</th>
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<th>SALES TAX</th>
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</table>
ANNEXURE-E

INTEGRITY PACT:

BCCL HAS SIGNED M.O.U WITH M/S. TRANSPARENCY INTERNATIONAL INDIA FOR IMPLEMENTATION OF INTEGRITY PACT FOR PURCHASE OF TENDERS VALUED AT RS. 2.00 CRORES AND ABOVE. THE INTEGRITY PACT DOCUMENT TO BE SIGNED BY THE BIDDERS IS ENCLOSED. SUBMISSION OF INTEGRITY PACT DOCUMENT DULY SIGNED, STAMPED AND ACCEPTED IS MANDATORY FOR THIS TENDER. THEREFORE, THE TENDERERS ARE ADVISED TO SUBMIT THE INTEGRITY PACT DOCUMENT DULY SIGNED, STAMPED AND ACCEPTED IN A SEPARATE SEALED ENVELOPE SUPERSCRIBING “INTEGRITY PACT AGAINST TENDER
NO.BCCL/Pur/610000/SDL Machine(Std. & Low Height)/09-10/20 DUE ON 29-05-2009.

IN CASE THIS IS NOT SUBMITTED IN A SEPARATE COVER ALONGWITH THE TENDER, THE TENDER MAY BE CONSIDERED AS UNRESPONSIVE AND MAY NOT BE CONSIDERED FURTHER FOR EVALUATION.

Independent External Monitor for this tender is

Shri D.Bandopadhyay , IAS(Rtd.)
GD-89 , Sector –III
Salt Lake
Kolkata – 700 016.
INTEGRITY PACT

Between

BHARAT COKING COAL LIMITED (BCCL) hereinafter referred to as “The Principal”

And

………………………………..hereinafter referred to as “The Bidder/Contractor”

Preamble

The Principal intends to award, under laid down organizational procedures, contract/s for -------------------------------------------. The Principal values full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s and Contractor/s.

In order to achieve these goals, the Principal cooperates with the renowned international Non-Governmental Organization “Transparency International” (TI). Following TI’s national and international experience, the Principal will appoint an external independent Monitor who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 – Commitments of the Principal

(1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:

1. No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for him/herself or third person, any material or immaterial benefit which he/she is not legally entitled to.

2. The Principal will, during the tender process treat all Bidders with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidders the same information and will not provide to any Bidder confidential/additional information through which the Bidder could obtain an advantage in relation to the tender process or the contract execution.

3. The Principal will exclude from the process all known prejudiced persons.

(2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the relevant Anti-Corruption Laws of India, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section 2 – Commitments of the Bidder/Contractor

(1) The Bidder/Contractor commits itself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

1. The Bidder/Contractor will not, directly or through any other person or firm, offer, promise or give to any of the Principal’s employees involved in the tender process or the execution of the contract or to any third person any material or immaterial benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

2. The Bidder/Contractor will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or
informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelisation in the bidding process.

3. The Bidder/Contractor will not commit any offence under the relevant Anti-corruption Laws of India; further the Bidder/Contractor will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

4. The Bidder/Contractor will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

(2) The Bidder/Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 – Disqualification from tender process and exclusion from future contracts

1. If the Bidder, before contract award has committed a transgression through a violation of Section 2 or in any other form such as to put his reliability or credibility as Bidder into question, the Principal is entitled to disqualify the Bidder from the tender process or to terminate the contract, if already signed, for such reason.

2. The Bidder accepts and undertakes to respect and uphold the Principal’s absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.

3. If the Bidder/Contractor can prove that he has restored/recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal may revoke the exclusion prematurely.

4. A transgression is considered to have occurred if in light of available evidence no reasonable doubt is possible.

Section 4 – Compensation for Damages

1. If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover from the Bidder liquidated damages equivalent to 3% of the value of the offer or the amount equivalent to Earnest Money Deposit/Bid Security, whichever is higher.

2. If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/Performance Bank Guarantee, whichever is higher.

3. The bidder agrees and undertakes to pay the said amounts without protest or demur subject only to condition that if the Bidder/Contractor can prove and establish that the exclusion of the Bidder from the tender process or the termination of the contract after the contract award has caused no damage or less damage than the amount or the liquidated damages, the
Bidder/Contractor shall compensate the Principal only to the extent of the damage in the amount proved.

Section 5 – Previous transgression

1. The Bidder declares that no previous transgression occurred in the last 3 years with any other Company in any country conforming to the TI approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
2. If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section 6 – Equal treatment of all Bidders/Contractor/Subcontractors

1. The Bidder/Contractor undertakes to demand form all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.
2. The Principal will enter into agreements with identical conditions as this one with all Bidders, Contractors and Subcontractors.
3. The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 – Criminal charges against violating Bidders/Contractors/Subcontractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor, which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

Section 8 – External Independent Monitor/Monitors

(three in number depending on the size of the contract)

(to be decided by the Chairperson of the Principal)

1. The Principal appoints competent and credible external independent Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairperson of the Board of the Principal.
3. The Contractor accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder/Contractor/Subcontractor with confidentiality.
4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or heal the violation, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
6. The Monitor will submit a written report to the Chairperson of the Board of
the Principal within 8 to 10 weeks from the date of reference or intimation to
him by the ‘Principal’ and, should the occasion arise, submit proposals for
correcting problematic situations.
7. Monitor shall be entitled to compensation on the same terms as being
extended to/provided to Outside Expert Committee members/Chairman as
prevailing with Principal.
8. If the Monitor has reported to the Chairperson of the Board a substantiated
suspicion of an offence under relevant Anti-Corruption Laws of India, and
the Chairperson has not, within reasonable time, taken visible action to
proceed against such offence or reported it to the Vigilance Office, the
Monitor may also transmit this information directly to the Central Vigilance
Commissioner, Government of India.
9. The word ‘Monitor’ would include both singular and plural.

Section 9 – Pact Duration

This Pact begins when both parties have legally signed it. It expires for the
Contractor 12 months after the last payment under the respective contract, and
for all other Bidders 6 months after the contract has been awarded.

If any claim is made/ lodged during this time, the same shall be binding and
continue to be valid despite the lapse of this pact as specified above, unless it is
discharged/determined by Chairperson of the Principal.

Section 10 – Other provisions

1. This agreement is subject to Indian Law. Place of performance and
jurisdiction is the Registered Office of the Principal, i.e. DHANBAD
2. Changes and supplements as well as termination notices need to be made
in writing. Side agreements have not been made.
3. If the Contractor is a partnership or a consortium, this agreement must be,
signed by all partners or consortium members.
4. Should one or several provisions of this agreement turn out to be invalid, the
remainder of this agreement remains valid. In this case, the parties will
strive to come to an agreement to their original intentions.

For the Principal For the Bidder/Contractor

Place…………………… Witness 1 : ………………………………
Date …………………… Witness 2 : ………………………………