

BHARAT HEAVY ELECTRICALS LIMITED HEEP HARIDWAR INDIA-PIN 249403 FAX NO: 0091 1334 226462 PHONE NO: 0091 1334 281561

| Enq. No.: T/6410/2013/2053/A1 | Date of issue | : | 26/11/2013 |
|---|---------------|---|------------|
| M/S Sub: BHEL-HEEP/OPEN-TENDER (COMPONENT) Dear Sir, | 7)/2013 | | |

The Heavy Electricals Equipment Plant (HEEP) located in Haridwar, India is one of the major manufacturing plants of Bharat Heavy Electricals Ltd. The core business of HEEP includes design and manufacture of large steam and gas turbines, turbo generators and so on.

Sealed tenders with the Tender No. and opening date clearly super scribed on the cover are invited from the manufacturers (registered as well as unregistered) for the supply of the following items:-

| Sl. No. | Tender No. | Description of Item | Qty. | Opening Date |
|------------|--------------------|---|-------|--------------|
| 1 | T/6410/2013/2053A1 | HW7799910844 CHAIN PULLEY BLOCK TRIPLE SPUR GEAR TYPE. SIZE: 5 TON DIM: CAPACITY | 02 NO | 19.12.2013 |

The details with required delivery are given in **Annexure-1**.

The tender documents can be down loaded from our web site www.bhel.com or www.bhelhwr.co.in or www.bhelhwr.co.in or www.bhelhwr.co

This notification shall be published in Indian Newspaper. The date for opening of tender shall be 19.12.2013. Tenders will be received up to 1.45 P.M. on 19.12.2013 and opened on the same day at 2.00 P.M. in the Tender Room. Please note that tender received after due date & time (1.45PM on 19.12.2013) will not be REPEAT will not be opened. BHEL will not be responsible for any type of postal / courier delay.

Specifications & Drawing of the above items are available on our above website with links provided for all Specifications, Drawings & Annexure (At the end of this document). Other cross referred documents can either be physically collected from BHEL, Haridwar or can be obtained by email amittiple@bhelhwr.co.in or studu@bhelhwr.co.in against proof of draft of the tender fee in favour of BHEL, Haridwar. This draft is to be submitted along with offer. Amendments/Corrigendum, if any, will be hosted on our web site only. Other terms and conditions will be as per tender documents.

The total quantity may undergo change at the time of ordering.

Please submit your Techno-Commercial offer only for the above requirement subject to our terms and conditions.

BIDS shall be opened at 2 PM on the due date in the presence of authorized representative of the bidders who may like to be present. The authorized representative should bring authority letter from their parent company (Manufacturer) for attending the bid opening.

KINDLY READ "INSTRUCTIONS TO BIDDERS." QUOTATION NOT IN ACCORDANCE WITH THE INSTRUCTIONS ARE LIABLE TO BE DISQUALIFIED AND IGNORED.

INSTRUCTIONS TO BIDDERS FOR OPEN TENDER

1.0 **DEFINITION**

Registered Vendors - Are those who are registered with BHEL, Haridwar for Megawatt rating/ Size/ Weight of tendered components in respective steel grade or machining of such components.

Un-registered Vendors - Are those who are not registered with BHEL, Haridwar for Megawatt rating/ Size/ Weight of tendered components in respective steel grade or machining of such components.

2.0 TECHNICAL QUALIFICATION

• Enclosed format – Annuxure-2 to be submitted. It is the mandatory requirement. Offer of Vendors not meeting these requirements may not be considered.

3.0 ESSENTIAL INSTRUCTIONS

- 1. Only those bids may be opened which have been submitted with requisite EMD & tender fee (if any).
- 2. All un-registered vendors shall be approved by BHEL, if found suitable, on the basis of data furnished by them in Supplier Registration Form (SRF) Foreign Vendors or Indigenous Vendors. Vendor (s) shall not be considered for ordering if not approved by BHEL.
- 3. BHEL team may visit the vendor (s) works for verification of capability and capacity claimed in tender documents/offer (s).
- 4. The tenders shall be submitted in two parts
 - i. Part I Techno -Commercial Bid + Vendor Registration Form
 - ii. part II Price Bid

as described below on or before the due date. Vendor Registration Form shall be submitted by unregistered vendors only.

- 5. The Quotation should be from the Principal / Original Manufacturer, failing which the quotation is likely to be ignored. In Case the quotation is submitted through agent, the quotation must accompany original authorization letter.
- 6. Any corrections / amendments shall be properly & fully authenticated with signature. No overwriting is acceptable.
- 7. Compliance of technical/commercial terms and conditions as per Annexure-3
- 8. Part-I containing techno-Commercial bid and Vendor Registration Form will be opened on the date and time specified in the tender notice in the presence of those venders who wish to attend.
- 9. Part-II (Price Bids) along with supplementary price bids, if necessary, will be opened at a later date of only those bidders whose techno-commercial bid has been found acceptable.
- 10. Vendor to quote best possible deliveries in the offer. Offers of those vendors may not be considered if it is not found suitable to BHEL requirement.
- 11. Currency exchange rate will be applicable on the date of opening of Part-I (Techno-commercial Bid) for evaluation purpose.
- 12. Depending upon the delivery suitability, BHEL reserves the right to split order on more than one vendor.
- 13. Evaluation of Bid: The bid shall be evaluated
 - a. Cost to BHEL basis. (Basic Cost + Insurance + Transportation + Duty)
 - b. The loading, if any, on account of LD penalty, payment terms or any other cost determined at later stage, which shall be communicated to the vendor.
- 14. Tenders when finalized shall be in the name of the bidder only and change of name during tender evaluation (without certificate from registrar of company) and after submission of the tender is liable to make the offer ineligible for participation.
- 15. All test certificates / Guarantee certificates to be submitted in TRIPLICATE along with dispatch documents.
- 16. BHEL reserves the right to open the price bid (part-II) along with the opening of technocommercial offer at its option and in that case vendor will be informed accordingly.
- 17. BHEL reserves the right to go for reverse auction. Vendors are requested to give their best price. In case of failure of reverse auction the paper bid shall be processed. Bidder should clearly indicate their acceptance for reverse auctioning in Annexure-3. The bids of those vendors who do not agree for reverse auction may not be considered. The Terms & Condition for Reverse Auctioning are given below.
- 18. Total weight -- /Gross / Net in Kg. & also package size essentially should be indicated if not exact then approximate.

19. BHEL will evaluate the technical bids against essential criteria/requirements. BHEL may seek clarifications, if required, from the qualified bidders only. These clarifications will be communicated to the eligible vendors. The offers of those bidders, who are unable to respond in specified time frame, are likely to be ignored.

20. SETTLEMENT OF DISPUTES

- Indigenous Vendors: In all cases of dispute the matter shall be referred for arbitration to any arbitrator to be appointed by the Executive Director or any officer who is the administrative head of Bharat Heavy Electricals Ltd., at Haridwar. The venue of arbitration shall invariably be Ranipur Haridwar. The award of the arbitrator shall be final and binding on both the parties. The arbitrator shall have the power to extend, from time to time, the time for making his award with the consent of the parties.
- Foreign Vendors: In the event of any dispute or difference arising between the parties to this contract regarding execution of same or their respective rights and liabilities there under, the same shall except as otherwise expressly provided therein, be referred to the arbitration of the two arbitrators, one to be appointed by each party; or in the case of the said arbitrators not agreeing then an umpire to be appointed by the two arbitrators in writing before entering on that reference and provisions of the Indian Arbitration Act ,1940 or any statutory notification, or re-enactment therefore and rules framed there under from time to time shall apply to such arbitration. If the two arbitrators do not agree on the appointment of umpire, the nomination of the umpire shall be done by the International Chamber of Commerce, Paris(France). The decision of arbitrators, or in case of their not agreeing, that of the said umpire shall be binding both on seller and purchaser. The venue of the arbitration invariably be New Delhi.

21. JURISDICTION

All question, dispute or differences arising under, out of or in connection with the purchase order shall be subject to the exclusive jurisdiction of Haridwar courts.

22. OVER RIDING CLAUSE

All stipulations made in any correspondence other than those exchanged in regards to "instruction" in our tender documents / enquiry for submission of your offer, if at all shall be void to the extent they are repugnant to the conditions contained herein above and in the purchase order.

23. FINALITY OF MANAGEMENT DECISION

At all places in the preceding clauses BHEL Management's decision shall be final.

4.0 GENERAL INSTRUCTIONS

PART-I (TECHNO-COMMERCIAL BID) shall comprise of following documents:

- a. Annexure-2 for Pre-qualification requirement.
- b. Annexure-3 for compliance of technical/commercial terms and conditions.
- c. Annexure-4 or 5 for un-registered venders and sub-venders both.
- d. Complete technical offer as per specification, drawings, technical requirement along with unpriced bid indicating FOB, C&F rate, separate Lloyd's/BV/TUV inspection charges (for Foreign vendors) and delivery schedule.
- e. Validity of offer to be indicated.
- f. Deviation with reference to specification/drawing, if any, should be clearly indicated on a separate sheet.
- g. Non-disclosure agreement as per Annexure 6. The agreement shall be duly stamped & signed.
- h. Any additional documents.
- i. Separate drafts of EMD & Tender fee (if any).
- j. <u>Vendor Registration Form (SRF)</u>

(Annexure-4 for Foreign Vendors & Annexure-5 for Indigenous Vendors)

The SRF duly filled up will be assessed for manufacturing capability quality systems being followed, organizational soundness and financial worthiness. The same shall be submitted with Part-I (Techno-Commercial Bid) by un-registered vendor only with BHEL, HEEP, Haridwar.

PART -II (Price Bid)

- a. Price bid with prices to be submitted as part-II of the tender.
- b. In case of foreign vendors, prices to be quoted on FOB & C&F Mumbai (India) basis separately. In case of FOB, Loading port must be mentioned. In case of Indigenous vendor, prices must be quoted on FOR-Destination-CPS-HEEP-BHEL basis.
- c. In case of foreign vendors, third party (Lloyd's/BV/TUV) inspection charges to be quoted separately as third party inspection (Lloyd's/BV/TUV) is in vendor's scope. For Indian vendors, inspection shall be by TUV/BHEL nominated inspection agency. Prices shall be loaded by 0.18% on account of TUV/BHEL nominated inspection agency inspection charges. Third Party inspection shall be in BHEL scope.
- d. Prices should remain firm till the execution of the order. However, in case vendor prefers to maintain their own PVC formula, they can do so. Vendors must give upper & lower cap. However, lower cap has to be either equal or more in percentage point than the upper cap from base prices. This is <u>must</u> for evaluation purpose. <u>Upper price limit</u> will be considered for evaluation purpose.
- e. Insurance Marine in case of foreign vendor & inland in case of Indigenous vendor shall be taken care by BHEL.
- f. Prices are to be written in both Figures & Words. In case of any difference between the two, If there is a discrepancy between words and figures, the amount in words shall prevail.
- g. LD Penalty shall be applicable at the rate of ½% (half percent) per week or part thereof subject to a maximum of 10% of the value of delayed portion of the order. In case of any variation in LD penalty acceptance, your prices shall be loaded to the extent LD penalty not accepted by you.
- h. Payment term shall be "100% payment against dispatch documents, through irrevocable LC (for foreign vendors) and through bank (for indigenous vendors)" and bank charges shall be either side. **BHEL** as a rule do not agree to release advance payment.
- i. Irrevocable LC is opened for one quarter (3 months) & is established 30 days prior to delivery schedule. The charges of establishing the LC are on either side i.e. charges in India to be borne by BHEL and charges outside of India to be borne by vendor. If any vendor insists for LC for more than one quarter, vendor has to essentially bear all charges (Within & Outside India) for the period exceeding one quarter.
- j. BHEL does not open confirmed LC even if vendor agrees to bear the confirmation charges.

IN CASE YOU ARE NOT MAKING AN OFFER AGAINST THIS ENQUIRY, THEN PLEASE ARRANGE TO SEND A LETTER OF REGRET IF YOU HAVE COLLECTED THE TENDER DOCUMENTS FROM BHEL.

TERMS AND CONDITIONS OF REVERSE AUCTIONING

Against this enquiry for the subject item/system with detailed scope of supply as per enquiry specifications, BHEL may resort to "REVERSE AUCTION PROCEDURE" i.e., ON LINE BIDDING ON INTERNET.

- For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
- BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on-line bidding on internet.
- BHEL will inform the vendor in writing in case of reverse auction, the details of Service Provider to enable them to contact & get trained.
- Business rules like event date, time, start price, bid decrement, extensions etc. also will be communicated through service provider for compliance.
- Vendors have to fax the Compliance form in the prescribed format (provided by Service provider) before start of Reverse auction. Without this, the vendor will not be eligible to participate in the event
- BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at "Total Cost to BHEL" like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the vendor to enable them to fill-in the price and keep it ready for keying in during the Auction.
- Reverse auction will be conducted on scheduled date & time.
- At the end of Reverse Auction event, the lowest bidder value will be known on the network.
- The lowest bidder has to Fax the duly signed Filled-in prescribed format as provided on case-to-case basis to BHEL through Service provider within 24 hours of Auction without fail.
- Any variation between the on-line bid value and the signed document will be considered as sabotaging the tender process and will invite disqualification of vendor to conduct business with BHEL as per prevailing procedure.
- In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL shall be opened as per BHEL's standard practice.

Annexure- 1

| Sl. No. | Tender No. | Description of Item | Delivery required | Qty. |
|------------|--------------------|---|-------------------|---------|
| 1 | T/6410/2013/2053A1 | HW7799910844 CHAIN PULLEY BLOCK TRIPLE SPUR GEAR TYPE. SIZE: 5 TON DIM: CAPACITY | 02 NOS 30/12/2013 | 02 NOS. |

• Vendor should quote best delivery.

Annexure- 2

Pre-Qualification Requirement (PQR) for Indent No. 20132053:

- 1. VENDOR TO CERTIFY THAT THE ITEM HAS BEEN MANUFACTURED AS PER 'IS 3832:2005' AND MEETS ALL REQUIREMENTS AS MENTIONED IN IT.
- 2. VENDOR TO PROVIDE LOAD TEST CERTIFICATE FROM GOV. APPROVED AGENCY.

Special Instructions for Indent No. 20132053:

- 1. VENDOR TO QUOTE FOR CHAIN PULLEY HAVING LIFT OF 5 METER.
- 2. VENDOR TO SEND PRODUCT CATALOGUE ALONGWITH THE OFFER.

(Besiffizmed 2010)

IS 3832: 2005

भारतीय मानक हस्तचालित चैन पुली ब्लॉक — विशिष्टि (तीसरा पुनरीक्षण)

Indian Standard
HAND-OPERATED CHAIN PULLEY BLOCK —
SPECIFICATION

(Third Revision)

ICS 53.020.30

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Licensed To: KIRAN WILBON

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'Cranes, Lifting Chains and Its Related Equipment Sectional Committee, ME 14

FOREWORD

This Indian Standard (Third Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Cranes, Lifting Chains and Its Related Equipment Sectional Committee had been approved by the Mechanical Engineering Division Council.

Hand-operated chain pulley blocks are used extensively for material handling during construction, erection and maintenance of industrial plants.

This standard was revised in 1971 and in 1986. In the second revision, the minimum requirements of onload chains were upgraded to Grade 40. Further a design with factor of safety of 4 was added. In this revision, additions have been made to the following:

- a) Introduction of a classification system broadly based on ISO 4301-1: 1986 'Cranes and lifting appliances
 — Classification Part 1: General', and
- b) Introduction of number of light load test and endurance type test.

Assistance also has been taken from BS 3243: 1990 'Hand-operated chain blocks'.

This standard covers mechanical aspects related to design, manufacture, erection and testing of the jib cranes required for the shop floor and general workshop applications like pillar, wall bracket jib cranes including moving cantilever wall cranes.

This standard has been prepared based on indigenous manufacturers data/practices prevalent in the field in India.

The composition of the Committee responsible for formulation of this standard is given in Annex D.

For the purpose of deciding whether a particular requirements of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2:1960 'Rules for rounding off numerical values (revised)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.



Indian Standard

HAND-OPERATED CHAIN PULLEY BLOCK — SPECIFICATION

(Third Revision)

| | , | | |
|--|--|--------------------------------------|---|
| | | IS No. | Title |
| 1 SCOPE | and the second second second | 5669:1987 | General plan of boundary |
| This standard lays d | own the general requirements and perated chain pulley blocks, worm | | dimensions for radial rolling bearings (first revision) |
| or spur gear type. | | 6216 : 1982 | Short link chain, grade T (8) calibrated for pulley block and other |
| 2 REFERENCES | is and which | | lifting appliances (first revision) |
| | ndards contain provisions which in this text, constitute provisions of | 6547 : 1972 | Specification for electric chain hoists |
| indicated were va | ties to agreements based on this | 7460 : 1988 | Tolerances for tapered roller bearings (first revision) |
| standard are encountries of applying the mindicated below: | araged to investigate the possibility ost recent editions of the standards | 7461 | General plan of boundary dimensions for tapered roller bearings: |
| IS No. | Title Specification | (Part 1): 19 | 93 Single row bearings (second revision) |
| 210:1993 | Grey iron castings — Specification (fourth revision) | (Part 2): 19 | 92 Double row bearings (second revision) |
| 305 : 1981 | Specification for aluminium bronze ingots and castings (second | (Part 3): 19 | 992 Flanged cups (second revision) |
| 617 : 1994 | revision) Aluminium and aluminium alloy ingots and castings for general | 8500 : 1991 | Structural steel — Micro alloyed (medium and high strength qualities) — Specification (first revision) |
| | engineering purposes (init | 14329 : 1995 | Malleable iron castings |
| 1030 : 1988 | revision) Carbon steel castings for general engineering purposes (fifth revision) | 15560 : 2005 | Point hook with shank up to 160 Tonnes — Specification |
| 1000 | Carbon steel billets, blooms, slabs | 3 TERMIN | OLOGY |
| 1875 : 1992 | and bars for forgings (VIPSI revision) | For the pur | rpose of this standard, the following shall apply (see Fig. 1). |
| 2062 : 1999 | Steel for general structural purposes — Specification (fifth revision) | 3,1 Hand-O | perated Chain Pulley Blocks — A block a load chain and operated by a hand chain |
| 2429 (Part 1): | Specification for round steel shor link chains (Electric butt welded) | so as to giv | e a mechanical advantage. |
| 1987 | grade L(3): Part 1 Non-calibrates load chain for lifting purposes (thir- revision) | 3.2 Worki which the suspend in | ng Load Limit — The maximum mass block shall be designed to raise, lower or general service. |
| 3109 (Part 2) 1982 | Specification for short link chair grade M (4): Part 2 calibrated loa chain for pulley blocks and othe lifting appliances (secon revision) | which the particular s | Working Load — The maximum mass, block shall raise, lower or suspend in a service condition. It shall not be greater than ag load limit but it may be less. |
| 4215 : 1983 | Specification for ring type need bearings (first revision) | upper and | e of Lifting — The distance between the lower limits of travel of the load hook. |
| 4367 : 1991 | Alloy steel forgings for general industrial use (first revision) | al 3.5 Veloci | ity Ratio — The ratio between the velocities hain and the load. It is equal to the number |

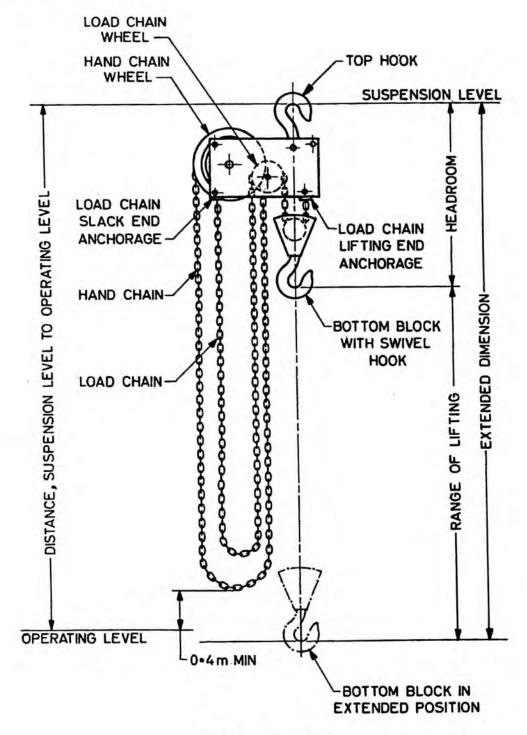


Fig. 1 Chain Pulley Block

Licensed To: KIRAN WILSON Email: kiran@bhelhwr.co.in of metres the hand chain has to be moved to raise or lower the hook through a distance of one meter.

- 3.6 Factor of Safety The ratio between the ultimate strength of the pulley block as a unit and working load limit where the ultimate strength of the pulley block is the minimum load on the load hook under which the load chain or any other component of the pulley block gives away.
- 3.7 Chain Pull or Operating Effort Average effort, in Newton, exerted by the operator on the hand chain to lift the load to working load limit and keep it in motion.
- 3.8 Suspension Level The level of the suspended hook bed in the case of a block suspended from a hook. In the case of a block combined with a trolley, the level of the surface upon which the trolley runs.
- 3.9 Head Room The distance between suspension level and the saddle of the load hook in its highest position, without causing any undue tension on load chain lifting anchorage.
- 3.10 Extended Dimension The distance between suspension level and the bottom hook saddle, when the bottom hook is in the lowest operating position, without causing any undue tension on load chain slack end anchorage. It equals the sum of the headroom and range of lifting.
- 3.11 Operating Level The level on which the operator stands.
- 3.12 Competent Person The person who is approved and declared as such under the relevant statutory provisions.

4 DESIGN AND CLASSIFICATION

4.1 Design

4.1.1 The blocks shall be so designed that all components shall withstand without failure, an application to the block of a load equal to at least four

times the working load limit. It shall take into account of the state of loading and expected life (see Annex A) and shall be based on the information provided by the purchaser in accordance with Annex B.

4.2 Classification

- **4.2.1** Hoists shall be classified in four classes with respect to the frequency of application and variation of magnitude of the load (see **4.2.3**) and the effect of impact.
- 4.2.2 The materials used in the construction of hoists shall be properly selected for the stresses encountered when the equipment is used in accordance with the manufacturers' recommendations. The design of the component parts of the hoist shall include due allowance for the effects of the duty which the mechanism will perform in service and shall be in accordance with the requirements of 4.2.3 and 4.2.4.

4.2.3 Design on Strength Basis

In the design of a component on the basis of ultimate strength, the value of stress factor multiplied by the duty factor for the appropriate hoist class; where basic stress factor shall be not less than 5 and the duty factor shall be as given in Table 1 for the appropriate hoist Class 1 and Class 2.

4.2.4 Design on Life Basis

Components designed on the basis of life shall have a rated life of not less than 20 years of 250 days per year for Class 1, 300 days per year for Class 2, and 333 days per year for Class 3 and Class 4.

4.2.4.1 The running hours per day or the life, in hours used for the purpose of the design of the components shall be the value specified value specified in Table 1 for the appropriate class.

4.3 Selection of Safe Working Load

The safe working load shall be selected in accordance

Table 1 Duty Factor and Life of Mechanism

(Clause 4.2.3)

| SI No. Mechanism Class | | chanism Class Duty Factor | | Average Life | | |
|------------------------|-----|---------------------------|------------|-------------------|-----------------|--|
| | | Strength | Wear | Running h/ day | Total Life h | |
| (1) | (2) | (3) | (4) | (5) | (6) | |
| a | 1 | 1.0 | 0.4 | 0.5 | Over 2 500 | |
| 1) | , | 1.0 | 0.5 | 1.5 | Over 9 000 | |
| ii) | 2 | 1.2 | 0.6 | 3 | Over 20 000 | |
| iii) | 3 | 1.4 | 0.7 | Over 6 | Over 40 000 | |
| iv) | 4 | concernd Tex | ALLA ACETS | III STEIP | | |

with Table 2 using the classification (see 4.2).

Table 2 Safe Working Load of Chain Blocks (Clause 4.3)

| (Clause 4.5) | | | | |
|--------------|----------------|--|--|--|
| SI No. | Classification | Safe Working Load % of Working Load Limit | | |
| (1) | (2) | (3) | | |
| i) | Ml | 100 | | |
| ii) | M2 | 80 | | |
| iii) | M3 | 63 | | |
| iv) | M4 | 50 | | |

5 CONSTRUCTION

5.1 Frame

The frame of the block shall be designed for proper strength and it shall maintain alignment under all expected conditions of service.

5.2 Gears

The gears shall be designed for proper strength and for surface durability such as to afford efficient operation throughout the period guaranteed by the manufacturers. In case of enclosed gearing, means shall be provided for ample lubrication.

5.3 Load Brakes

All pulley blocks which are not inherently selfsustaining when the pull of the hand chain is removed, shall be provided with an automatic mechanical load brake which will prevent self-lowering of the load and arrest and sustain load in all working positions. The load brake shall also allow smooth lowering of the load without serious overheating which may impair efficient working of the block.

5.4 Pawls

- 5.4.1 Pawls shall be of sufficient strength to arrest the full load from lowering due to gravity.
- 5.4.2 The relative width and positioning of the ratchet wheel and the pawl shall be such as shall ensure full engagement irrespective of wear of the friction faces.
- 5.4.3 The pawl and the ratchet shall be made of steel, hardened and tempered or given an equivalent treatment to provide satisfactory degree of wear resistance together with toughness. The hardness of the pawl tip shall not be less than 40 HRC and that of ratchet not less than 30 HRC.
- 5.4.4 The pawl shall engage with the ratchet wheel either by means of a spring other than a tension spring or by some other equally effective means.
- 5.4.5 The pawl shall be so positioned that it engages

the ratchet wheel under gravity, should its operating mechanism fail.

5.4.6 Adequate arrangements shall be made to ensure the pawl does not seize on the pawl pin.

5.5 Bearings

Bearings used shall be of plain or rolling type.

5.5.1 Roller bearings shall conform to IS 4215 or IS 5669 or IS 7460 or IS 7461 (Part 1) or IS 7461 (Part 2) or IS 7461 (Part 3).

5.5.2 Bronze or Cast Iron Plain Bearings

When plain bearings are used, their maximum bearing pressure shall not exceed the following values unless manufacturer can produce evidence satisfactory to those concerned that a higher pressure is permissible:

| | In Bronze Bearings MN/m² | In Cast Iron Bearings MN/m ² |
|------------------------------|--------------------------|---|
| Steel shaft - ground | 17 | 14 |
| Steel shaft - not grou | | 10 |
| NOTE — $10 \text{ MN/m}^2 =$ | 1 kgf/mm². | |

5.5.3 Plain Bearings in Materials Other than Cast Iron or Bronze

Higher bearing pressures than those specified in 5.5.2 may be used by the manufacturer, if evidence is produced that higher pressure may be used.

5.6 Lubrication

The block shall be provided with adequate facilities for lubrication unless materials with inherent lubricating properties are used.

5.7 Suspension Fittings

5.7.1 Hook

Point hooks with shank up to 160 t shall conform to IS 15560. It shall be forged from steel and the shank shall be either:

- a) provided with nut or screwed collar of out side diameter of atleast 1.5 times the diameter of the shank engaged by the nut or screwed collar on the load side shall be equal to atleast 0.66 times the diameter of the shank before being interrupted by drilling for pins or other fixings,
- so shaped from the solid as to afford the same security as though a nut were fitted as in 5.7.1 (a).

The hooks shall be so designed that it shall be free to swivel in the loaded conditions without twisting the load chain. Swivel hooks shall be capable of being

lubricated both initially on installation and during servicing. Where the means of attachment of a shank hook is dependent on a split collar mating with an enlarged head on the shank, the means of retention shall be secure. However, it is in agreement between the manufacturer and purchaser. There shall not be any welding in the hooks.

NOTE — Safety latches are recommended but attention is drawn to the statutory regulations covering lifting operations. In some cases those requirements affect hooks, demanding safety catches, mousing or use of 'C' hooks.

5.7.1.1 Top hooks

Where provision is made for the top hook to swivel, it shall remain positionally stable under load.

5.7.1.2 Bottom hooks

Bottom hooks shall be free to rotate under load so as to prevent twisting of the load chain. If threaded components are used, they shall be sealed against ingress of moisture. Welding shall not be used as a method of retention or sealing.

5.7.2 Other Fittings

Suspension fittings other than hooks shall be of sufficient strength to affect a static factor of safety of not less than four unless otherwise required by the relevant Indian Standards.

5.7.3 All suspension fittings shall be readily detachable for inspection of stressed parts, such as shanks.

5.8 Load Chain

5.8.1 Grade

The minimum requirements of a load chain pulley block shall not be less than that of Grade T (8) chain conforming to IS 3109 (Part 2).

NOTE — If chain of grade 100 is used, the percentage elongation shall not be less than 10.

5.8.2 Chain Engagement

Means shall be provided to guide the load onto the load chain wheel.

5.8.3 Length of Chain

Total length of the load chain shall exceed the minimum length required to give the prescribed range of lift by not less than three links per fall to ensure that the slack and anchcourage is not loaded.

5.8.4 Load Chain Wheel

The load chain wheel shall be made of suitable material for use with load chain employed and be of adequate strength and shall be suitable designed to ensure effective operation of the chain and should be properly secured with shaft, preferably with splines.

5.8.5 Guide

Means shall be provided to ensure effective guidance of the load chain into chain wheel pockets.

5.8.6 Stripper

A stripper shall be provided to ensure effective disengagement of the load chain wheel.

5.8.7 Idler Wheel

The chain pulley blocks shall be provided with idler wheels so shaped as to avoid the twisting of the chain when passing around.

5.8.7.1 The pitch diameter of the idler wheels shall be such that the bending action of the link is avoided.

5.9 Anchorages

The load chain anchorages, associated fittings and the frame work at the slack end shall be at least equal in strength to 2.5 times the maximum tension in the load chain when the working load limit is being lifted.

5.10 Hand Chain

5.10.1 Grade

The material, welding and finish shall be at least equal to that of grade 30 chain as per IS 2429. Hand chain shall be untested, pitched and polished condition. It should have proper seating in hand chain wheel and should not over ride.

5.10.2 Link Dimensions

The following dimensions are recommended:

| Nominal Size | Pitch mm | Outside Width mm |
|--------------|----------------|---------------------|
| 5 | 22.5 ± 0.5 | 17 ± 0.5 |
| 6 | 22.5 ± 0.5 | 20 ± 0.5 |

5.10.3 Length of Chain

The length of the hand chain shall be such that the lowest point of the suspended loop shall hang at least 400 mm above the operating level.

5.10.4 The hand chain shall be joined without twist.
The method of joining shall ensure that there are no sharp or projecting edges, causing any harm during its used.

5.10.5 Hand Chain Wheel

Hand chain wheels shall be provided with flanges and designed to ensure effective operation with the hand chain.

5.10.6 Hand Chain Guide

The hand chain guide shall be so designed that the

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chain will not come out of the hand chain wheel during use nor get caught between guide and hand chain wheel.

5.11 When the chain pulley block is mounted on a trolley with the travel movement, the trolley frame shall be provided with adequately designed anti-tilt/ anti-drop plates which will prevent falling of the load in the event of bending of side plates or breakage of wheel or pin, etc.

6 MATERIALS

6.1 The material shall be so selected as to meet the ultimate properties keeping the factor of safety in mind. Some of the recommended materials for different components of pulley block are given below:

| Component | Conforming to IS No |
|-------------|--|
| Frame | IS 2062 |
| | IS 8500 |
| Chain wheel | IS 210 |
| Cilula III | IS 305 |
| | IS 617 |
| | IS 1030 |
| | IS 14329 |
| Gears | IS 1875 |
| 4.00 | IS 4367 |
| Chain wheel | IS 305 IS 617 IS 1030 IS 14329 IS 1875 |

7 RATING

The hand-operated chain pulley blocks shall be rated according to the working load limit which in case of a block with four or fewer falls shall be determined from the safe working load of the load chain.

Where the falls exceed four, or angles are introduced into the chain run, a chain stronger than that for the corresponding four-fold block is required to provide for the additional load caused by friction.

8 EFFORT AND VELOCITY RATIO

- 8.1 The manufacturer shall declare the operating effort on the hand chain required to raise the safe working load, and also the velocity ratio of the block (see Annex C).
- 8.1.1 The operating effort shall be equivalent to the minimum weight suspended on the hand chain which, given a start, continues to travel downwards and to raise the full safe working load on the hook.

9 TESTS

9.1 Design Test

At the purchaser's option and expense a sample block or blocks shall be selected by the representative of the purchaser and shall be subjected by a tensile testing

machine, to at least four times the working load limit capable to withstand for at least 5 min, without breakage of material, partial or complete or such distortion as could result in the release of the load. Following this test all parts shall be defaced to make them unusable.

9.2 Operational Proof Test

Each chain pulley block shall be subjected by the manufacturer to a proof load of 1.5 times the working load limit through a length of lift which will ensure that every part of the block mechanism and each tooth of the gears come under load. When the test is carried out by operating the hand chain wheel by power, the load shall also be lifted and lowered by hand through a distance sufficient to prove the satisfactory working of the mechanism of the block.

9.2.1 Examination

After operational proof test, the block shall be examined by a competent person. It complies with this standard only if it is found free from deformation, cracks, flaws or other defects.

9.3 Light Load Test

9.3.1 Test Procedure

Each block shall be loaded with a test weight of between 25 percent and 50 percent of working load limit (WLL) which shall be raised and lowered through a height of between 250 mm and 500 mm.

9.3.2 Acceptance Criteria

When the hand chain is released at any point during raising and lowering, the brake shall hold the weight.

NOTE — Blocks which are fitted with seals may appear to hold the load by the brake, when in fact it is being held by seal friction only. This condition does not meet the criteria of acceptance.

9.4 Endurance Type Test

9.4.1 Test Procedure

A representative sample block shall be loaded with the WLL which shall be raised and lowered so that the mechanism is in motion for 100 h at an equivalent minimum hand chain speed 20 m/min in 500 mm to 600 mm steps.

9.4.2 Acceptance Criteria

There shall be no breakage of material, partial or complete, nor such distortion as could result in the release of the load.

NOTES

1 For the purpose of this test, the block may be reeved with a single fall provided the tension in the load chain equals the actual tension imposed when the fully reeved block is raising the WLL.

2 This is prototype test and record to be maintained.

10 INSPECTION, CERTIFICATE OF TEST AND EXAMINATION

10.1 Inspection

The representative of the purchaser shall have access to the works of the manufacturer at all reasonable times for the purpose of witnessing the specified test and inspecting the test equipment and methods of examination.

10.2 Certificate of Test and Examination

A certificate of test and examination shall be issued with every consignment of blocks, giving the following information for each one:

- a) Safe working load,
- b) Distinguishing mark,
- c) Description,
- d) Range of lift,
- e) Load chain size and grade,
- f) Number tested, and
- g) Operational proof load applied.

11 MARKING

11.1 After the chain block passes the proof test, it shall be permanently and legibly stamped with the

following information:

- a) Distinguishing mark,
- b) Safe working load,
- c) Grade of load chain,
- d) Range of lift, and
- e) Manufacturer's name, initials or trade-mark.

Safe working load shall be marked in such a way that it is clearly legible from operating level.

11.2 BIS Certification Marking

The chain pulley blocks may also be marked with the Standard Mark.

11.2.1 The use of the standard mark is governed by the provisions of *Bureau of Indian Standards Act*, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the license for the use of Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

12 PRESERVATIVE MAINTENANCE

The hand-operated chain pulley blocks shall be painted on non-working surfaces and the working surfaces shall be covered with grease.

ANNEX A

(Clause 4.1.1)

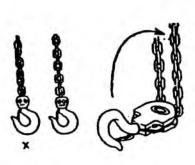
RECOMMENDATIONS FOR SAFE USE AND MAINTENANCE OF HAND-OPERATED CHAIN PULLEY BLOCKS

- A-1 Never lift a load in excess of the safe working load marked on the block. The block has been proof-loaded to one-and-a-half times the safe working load, but this has been done under carefully controlled conditions. Use of the block at any load greater than the safe working load may result in damage (see Fig. 2).
- A-2 Never use a load chain as a sling, that is, by back hooking.
- A-3 Before use, examine the load chain to ensure that there is no twist. In the case of a block lifting on two falls, twist can arise from the bottom block being accidentally turned over.
- A-4 Keep load chains well lubricated along their whole length and especially at the contact points between the links. In special circumstances, chain may be used dry, but their life will be considerably reduced.
- A-5 If the load chain jumps, does not work smoothly

- or marks in use, it is probably out of pitch and should be replaced.
- A-6 Do not allow, dirt and hard grease together in the pockets of the load or hand chain wheels.
- A-6.1 Do not store, or leave the pulley blocks lying on the ground where they can collect dirt.
- A-7 Chain pulley blocks are designed for lifting loads vertically and should not be used for pulling horizontally or at an angle.
- A-8 Never lift with the point of the hook.
- A-9 Never run the load chain out too far. When the block is run out beyond the extended dimensions, an excessive and dangerous load is imposed at the load chain slack end anchorage.
- A-10 All pulley blocks shall be registered and, at periodic intervals, should be thoroughly cleaned, inspected and lubricated.

A-11 Care shall be taken when replacing the chains that the same grade of chain is fitted. Blocks shall be marked with the grade of chain.

A-12 Check the suspension fixture for top hook for adequate strength to support the load being lifted and the weight of the chain pulley block.



 No twisting No capsizing for double type chains

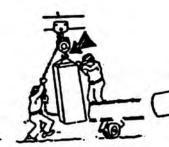


2. Sling load from the centre of the hook



No direct binding of a load with a load chain







4. No overloading

5. No extreme slant slinging

6. No overlifting No overlowering



7. No rough handling



8. Do'nt forget to oil the load chain after use

Fig. 2 Illustrations for the Safe Use of Hand-Operated Chain Pulley Block

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ANNEX B

(Clause 4.1.1)

INFORMATION TO BE SUPPLIED BY THE PURCHASER WITH THE ENQUIRY OR ORDER

- B-1 Particulars of hand-operated chain pulley blocks:
 - a) Capacity or load to be lifted, in tonnes;
 - b) Conditions of service;
 - Life (above operating level and below operating level, in metres);
 - d) Type of suspension (hook, lug push trolley or geared trolley);
- e) Headroom (maximum headroom permissible in metres);
- f) Distance between suspension level and floor level/operating level;
- g) Spur gear or worm gear type;
- h) Whether the design test is required; and
- j) Advice about lubrication shall be included in the servicing instructions.

ANNEX C

(Clause 8.1)

EFFORT RELATED TO RATING

- C-1 Table 3 gives the opening efforts for different classes of pulley blocks with rating up to 6.0 tonnes. It represents average good practice. It is intended as a guide in choosing the correct type of block to suit the conditions of work and type of duty.
- C-2 For blocks rated above 6 t, operating effort required is a matter for arrangement between the manufacturer and the purchaser, in the light of the relevant figures declared as required in 8.
- C-3 The values given in Table 3 are not intended as rigid categories, but as an indication to be used imaginatively and flexibly. For example a worm gear block may be designed to lift 1.6 t with an operating

effort of 500 N, and would therefore be a class 2 block. If this type of block is fitted to a frequently used light crane, it should be down rated to a safe working load of 1 t to make it a one man machine. This, of course, is at the customer's discretion. On the other hand, the customer may require an occasionally used maintenance crane in a power house where 500 N operating effort will be acceptable.

Arbitrary figures are quoted to classify duty in relation to the number of hours in usage, to permit a rough relative assessment of operating costs and initial costs.

For intermediate ratings the operating effort for the next higher rating should be expected.

Table 3 Effort Relating to Rating

(Clauses C-1 and C-3)

| SI No. | Class | Work Description | | | | | Rating, | | | | |
|--------|-------|---|-----|-----|-------|------|-------------|-------|------|------|------|
| | | | | | | | - | | | | |
| | | | 0.5 | 1 | (1.5) | 2 | (2.5) | 3 | (4) | 5 | (6) |
| | | | | | | Oper | ating Effor | ts, N | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| i) | 1 | Light duty general purpose erection tackle, maintenance tackle, maintenance cranes, etc. 125 h/year | 310 | 410 | 430 | 460 | 510 | 560 | 610 | 660 | 710 |
| ii) | 2 | Medium duty cranes, runways lifting parts into position for machining duty — Partial shift more than 450 h/year | 260 | 330 | 340 | 460 | 430 | 490 | 550 | 610 | 660 |
| iii) | . 3 | Heavy duty cranes, runways lifting parts into position for manufacturing duty — Full shift more than 999 h/year | 210 | 310 | 340 | 360 | 410 | 460 | 510 | 560 | 610 |
| iv) | 4 | Very heavy duty cranes, lifting parts into position for manu- facturing duty — 2 or 3 shift more than 1 998 h/year | 190 | 310 | 330 | 350 | 380 | 510 | 540 | 560 | 580 |

NOTES

- 1 1 Tonne = 1 000 kg = 10 4 N; 1 kg = 10 N.
- 2 Roughly a man can pull 250 N continuously and 350 N for a short period.
- 3 Capacities shown in brackets are non-preferred ratings.

ANMEXURE-2

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ANNEX D

(Foreword)

COMMITTEE COMPOSITION

Cranes, Lifting Chains and Its Related Equipment Sectional Committee, ME 14

Organization

Bharat Heavy Electricals Ltd, Tiruchirappalli Armsel MHE Pvt Ltd, Bangalore

Anupam Ltd, Anand Bharat Heavy Electricals Ltd, Hyderabad

Central Building Research Institute, Roorkee

Directorate General Factory Advice Service & Labour Institute,

Mumbai

Furnance and Foundry Equipment Co, Mumbai Hercules Hoists Ltd, Mumbai Indian Chain Pvt Ltd, Kolkata

Indian Link Chain Manufacturers Ltd, Mumbai Jessop & Co Ltd, Kolkata

Larsen & Toubro Limited, Kolkata

Mega Drives Pvt Ltd, Thane

Metallurgical & Engg Consultants (I) Ltd, Ranchi

M. N. Dastur & Co Ltd, Kolkata

Ministry of Defence (DGI), New Delhi

Ministry of Surface Transport, New Delhi Mukand Ltd, Thane

National Thermal Power Corporation Ltd, New Delhi

Reva Engg Industrial (P) Ltd, New Delhi

Tata Engg & Locomotive Co Ltd, Pune

Tata Iron and Steel Company Limited, Jamshedpur

Unicon Technology International Pvt Ltd, New Delhi

WMI Cranes Ltd, Mumbai BIS Directorate General Representative(s)

SHRI K. MANICKAM (Chairman)

SHRI A. C. HERI

SHRU N. VASUDEVA (Alternate)

SHRI K. K. PATHAK

SHRI GIRISH SHRIVASTAVA

SHRI H. BHARANI (Alternate)

SHRI R. L. GUPTA

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SHRI MANISH NALWA (Alternate)

SHRIS, M. MALANI

SHRI A. S. BASU, Scientist F & Head (MED)

[Representing Director General (Ex-officto)]

Member Secretary SHRI S. B. ROY Director (MED), BIS

Bureau of Indian Standards

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This Indian Standard has been developed from Doc: No. ME 14 (0740).

Amendments Issued Since Publication

| | Amenament | |
|----------------|---------------|---------------|
| Amend No. | Date of Issue | Text Affected |
| Tanton Control | | |
| | | |
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AMENDMENT NO. 1 DECEMBER 2005 TO

IS 3832 : 2005 HAND-OPERATED CHAIN PULLEY BLOCK — SPECIFICATION

(Third Revision)

(Page 1, clause 2) — Delete IS 3109 (Part 2): 1982 along with its title.

(Page 3, clause 4.2.3, last line) - Delete '1 and Class 2'.

(Page 3, clause 4.2.4.1, third line) — Delete one of the repeated words 'value specified'.

(Page 5, clause 5.8.1, third line) — Substitute 'IS 6216: 1982' for 'IS 3109 (Part 2)'.

(Page 5, clause 5.10.1, second line) — Substitute 'grade L (3) chain as per IS 2429 (Part 1)' for 'grade 30 chain as per IS 2429'.

[Page 9, Annex B, clause B-1(c)] — Substitute 'Lift' for 'Life'.

(ME 14)

ANNEXURE-3

$\frac{\text{COMPLIANCE SHEET FOR TECHNICAL/COMMERCIAL TERMS AND CONDITIONS FOR TWO}{\text{PART TENDER}}$

PLEASE FILL THIS ANNEXURE & ATTACH WITH YOUR TECHNO-COMMERCIAL BID.

Offer must be sent in two separate sealed envelopes containing techno-commercial offer in one envelope marked "TECHNO-COMMERCIAL BID" and prices in second envelope marked "PRICE-BID". Both the envelopes must be contained in the main envelope. Tender name and due date to be marked on all the envelopes.

You are requested to kindly confirm /clarify the following:-

| S.No. | Description | Your Confirmation |
|-------|---|-------------------|
| 1. | Vendor to confirm that they meet each & every clause of our | |
| | Specifications/Drawings. | |
| 2. | If "No" to serial number 1, vendor to specify each deviated clause | |
| | &submit in a separate sheet. | |
| 3. | Vendor to list out on a separate sheet any activity which is | |
| | outsourced.Please furnish details of out sourced vendor. | |
| 4. | Validity: confirm that validity of the offer shall be 90 days from the | |
| | date of tender opening | |
| 5. | Confirm that un-priced part of price bid is enclosed with technical | |
| | commercial offer | |
| 6. | Confirm that prices have been quoted on FOB as well as C & F basis(For | |
| | Foreign vendors) | |
| 7. | Confirm that Loading Port has been mentioned. | |
| 8. | Confirm that prices have been quoted on FOR as well Ex-works | |
| | basis.(For Indigenous vendor) | |
| 9. | Confirm that prices shall be firm and fixed throughout delivery period. | |
| 10. | Confirm that payment term shall be "100% payment against dispatch | |
| | documents, through irrevocable LC (for foreign vendors) and through | |
| | bank (for indigenous vendors)" and bank charges shall be either side | |
| 11. | LD Penalty shall be applicable at the rate of ½ % (half percent) per | |
| | week or part thereof subject to a maximum of 10% of the value of | |
| | unexecuted portion of the order. Incase of any variation in LD penalty, | |
| | your prices shall be loaded to the extend LD penalty not accepted by | |
| | you. | |
| 12. | Confirm that all test certificates / Guarantee certificates to be submitted | |
| | as per BHEL specification. in TRIPLICATE along with despatch | |
| 10 | documents | |
| 13. | Right of acceptance – BHEL reserves the right to reject any or all | |
| | quotations without assigning any reasons thereof. BHEL also reserves | |
| | the right to increase or decrease the tendered quantities. Vendors should | |
| | be prepared to accept order for reduced quantities without any extra charges. Vendor should also be prepared for giving discount in case of | |
| | increase in quantity. | |
| 14. | Confirm specifically that material shall be supplied as per tender | |
| 17. | documents. | |
| 15. | No grace period in delivery is acceptable. Please quote delivery | |
| 10. | accordingly. | |
| 16. | Ink signed order acceptance shall be furnished within 15 days of order | |
| | placement. | |
| 17. | Confirm if there is Indian agency commission included in your price. | |
| 18. | Inspection by third party (Lloyds/BV/TUV) inspection agency as per | |
| | approved quality plan. Please quote material cost and third party | |
| | (Lloyds/BV/TUV) inspection charges separately & third partyinspection | |
| | shall be in vendor scope(For Foreign vendors) | |
| 19. | Inspection by BHEL nominated agency as per approved quality plan. | |
| | Prices shall beloaded by 0.18% on account of third party inspection | |
| | charges. Third partyinspection shall be in BHEL scope (For indigenous | |
| | vendors) | |
| 20. | Please confirm your acceptance for Reverse Auctioning of these items. | |



ANNEXURE 4

GUIDELINES TO FOREIGN SUPPLIERS FOR FILLING UP SUPPLIER REGISTRATION FORM

| Document No. | AA:MM:SR:01 |
|--------------|-------------|
| Revision No. | 01 |
| Page No. | I of II |
| | |

- 1. Prospective Suppliers may also visit our web site www.bhel.com (link Supplier Registration -> New Supplier Required) to know more about the requirement of new suppliers for various items in our units.
- 2. Registration Form no. SRF(F)01 may be obtained from BHEL website www.bhel.com.
- 3. Application for registration, with a covering letter detailing where your products can find application (if possible) in BHEL unit(s), should be sent to:

Supplier Development Cell

Unit Name:

Bharat Heavy Electricals Ltd.

City: India

- 4. In case registration is being sought in multiple units of BHEL, please send the separate application to each unit.
- 5. Any clarification with respect to procedure for registration may be obtained from the Supplier Development Cell of respective BHEL unit.
- 6. All columns are to be filled up properly in the space provided for. Wherever it is not applicable, mention it as "Not Applicable". The form is to be signed by the authorised signatory and submitted in original.
- 7. Please attach separate sheet if the space provided is insufficient. For any other information also, separate sheet may be attached.
- 8. Any information / clarification required by BHEL during processing of registration must be given expeditiously.
- 9. Please ensure that all required enclosures are attached with the filled up Supplier Registration Form and all enclosures are numbered & list of enclosures is given as required.
- 10. As multiple copies of the application forms are required for processing at our end, please do not spiral bound the application forms or its enclosures and instead send them in two hole clip flat file.
- 11. Please fill up the check- list given on next page and send along with the Supplier Registration Forms to BHEL.
- 12. Please note that if you are registered and participate in Tender process and qualify to get order from BHEL, your performance based on Quality of your product, delivery performance and service rendered will be evaluated inline with Chapter VI.
- 13. If you are attaching a document in a language other than English, a self attested English translated document may please be also attached.



ANNEXURE 4

CHECK-LIST FOR FOREIGN SUPPLIERS REGISTRATION FORM

| Document No. | AA:MM:SR:01 |
|--------------|-------------|
| Revision No. | 01 |
| Page No. | II of II |

| S.N. | Check-Point | Yes/No |
|------|--|--------|
| 1.0 | Information against all points in the Supplier Registration Form has been given. | |
| 2.0 | Authoristion letter has been enclosed (in case of Indian representative) | |
| 3.0 | Banker's certificate has been enclosed | |
| 4.0 | Are you an ISO: 9001 accredited supplier? | |
| 4.1 | If yes, have you enclosed copy of ISO 9001 accreditation certificate & "Table of Contents" of your Quality Manual? | |
| 4.2 | If no, have you enclosed written down procedure / manual of Quality Management System? | |
| 5.0 | Have you enclosed experience list/ performance certificate (as per sl. 3.0 of the form SRF(F) 01) | |
| 6.0 | List of enclosures has been furnished (as per S1 5.0 of the form SRF(F) 01) | |
| 7.0 | All the parts of the form & enclosures have been signed by Authorised Signatory. | |
| 8.0 | D&B Report/ Creditreform report etc. has been attached. | |

Signature & seal

Date:

(Authorised Signatory)

Note: This check list is to be attached with the filled up Supplier Registration Form.

BHARAT HEAVY ELECTRICALS LIMITED, INDIA

ANNEXURE 4

FORM NO. SRF(F)01: (FOREIGN SUPPLIER)

Page 1 of 2

ALL THE PAGES OF THE FORM ARE TO BE SIGNED ALONGWITH SEAL BY THE AUTHORISED SIGNATORY

| | SUPPLIER REGISTRATION FORM | | |
|-----|--|-------------------------------------|--|
| 1.0 | GENERAL INFORMATION: | | |
| 1.1 | NAME OF SUPPLIER: (TO BE REGISTERED) | | |
| 1.2 | SUPPLIER ADDRESS : (TO BE REGISTERED) | | |
| | E - Mail : | | |
| | TELEPHONE : (Landline)- | Mobile | |
| | WEB SITE : | | |
| 1.3 | DETAILS OF FACTORY / WORKS : | | |
| | ADDRESS : | | |
| | E - Mail : | | |
| | TELEPHONE : (Landline)- | Mobile | |
| 1.4 | DETAILS OF MARKETING REPRESENTATIVE | (OUTSIDE INDIA, IF ANY) | |
| | ADDRESS : | | |
| | E - Mail : | | |
| | TELEPHONE: (Landline)- | Mobile | |
| 1.5 | DETAILS OF INDIAN REPRESENTATIVE, IF A | NY: (Attach authorisation letter) | |
| | NAME: | | |
| | ADDRESS : | | |
| | E - Mail : | | |
| | TELEPHONE : (Landline)- | Mobile | |
| 1.6 | CHIEF EXECUTIVE: | | |
| 1.7 | YEAR OF ESTABLISHMENT : | | |

BHEL CERTIFIED ASSESSOR

BHARAT HEAVY ELECTRICALS LIMITED, INDIA

ANNEXURE 4

FORM NO. SRF(F)01: (FOREIGN SUPPLIER)

Page 2 of 2

| 1 OKW 110: BKI (1)0 | <u>1.</u> (1 O1) | LIGITOU | i i EiEi() | 1 age 2 01 2 |
|---|------------------|-------------------|--------------------------------|-------------------|
| 1.8 YEAR OF COMMENCEMENT | OF BUSINE | SS: | | |
| 1.9 PRODUCTION CAPACITY PEI | R ANNUM (| details of major | manufacturing/ testing facilit | ies to be given): |
| 1.10 PARTICULARS OF PRODUCT FOR REGISTRATION : (ATT | | | | RED |
| 1.11 NAME (S) OF BANKERS : | | | | |
| 1.12 BANKER'S CERTIFICATE AS (Enclose Certificate): | S TO CREDI | TWORTHINES | S OF THE CLIENT | |
| 1.13 PORT OF LOADING : | | | | |
| 1.14 NEAREST AIRPORT : | | | | |
| 1.15 Report from D&B/ Creditreform | etc. (As per C | Cl. 7.1 of Chapte | er V) (MANDATORY): | |
| 2.0 FINANCIAL INFORMATION | : (FOR LAS | T 3 YEARS) | | |
| DADAMETED | VEAD 1 | VEAD 2 | WEAD 2 | |
| PARAMETER ANNUAL TURN OVER | YEAR -1 | YEAR -2 | YEAR -3 | |
| PROFIT AFTER TAX | | | | |
| (COPY OF AUDITED ANNUAL . | ACCOUNTS | FOR LAST 3 | YEARS TO BE ENCLOSED |) |
| 3.0 QUALITY MANAGEMENT S | SYSTEM: | | | |
| 3.1 IS THE COMPANY ISO:9001 C | CERTIFIED : | YES / NO | | |
| 3.1.1 IF YES, ENCLOSE COPY OF 3.1.2 IF NO, ENCLOSE QUALITY | | | | |
| 4.0 EXPERIENCE LIST/ PERFOR | MANCE CI | ERTIFICATE 1 | FOR OFFERED / SIMILAI | R ITEMS : |
| (ATTACH LIST OF PRESE SIMILAR TYPE & SIZE OF BEEN SOUGHT AND WIT LAST THREE YEARS) | F ITEM / I | EQUIPMENT | FOR WHICH REGISTRAT | ΓΙΟΝ HAS |
| 5.0 ANY OTHER INFORMATION | Ι: | | | |
| 6.0 LIST OF ENCLOSURES: (BROCHURES, CATALOGUES | S, TECHNIC | AL LITERATU | RE ETC.) | |
| | | | Signature & Seal | |
| | | | AUTHORISED SIGNA | TORY |
| | | | | |
| E – Mail | | | NAME | : |
| TELEPHONE : (Landline): Mobile : | | | DESIGNATION | : |

DATE:



GUIDELINES TO INDIAN SUPPLIERS FOR FILLING-UP SUPPLIER REGISTRATION FORM

ANNEXURE - 5

| Document No. | AA:MM:SR:01 |
|--------------|-------------|
| Revision No. | 01 |
| Page No. | I of II |

- Prospective Suppliers may also visit our web site www.bhel.com (link Supplier Registration -> New Supplier Required) to know more about the requirement of new suppliers for various items in our units.
- 2. Registration Form may be obtained from BHEL website www.bhel.com.
- 3. Application for registration, with a covering letter detailing where your products can find application (if possible) in BHEL unit(s), should be sent to:

Supplier Development Cell

Unit Name:

Bharat Heavy Electricals Ltd.

City:

India

- 4. In case registration is being sought in multiple units of BHEL, please send the separate application to each unit.
- Any clarification with respect to procedure for registration may be obtained from the Supplier Development Cell of respective BHEL unit.
- 6. The Supplier Registration Form has four parts:

Part A Organisational Information
Part B Quality System Form no. SRF(I)01 – page 1 to 10
Part C Technical Competence Form no. SRF(I)01 – page 11 to 12
Form no. SRF(I)01 page 13
(if sent by BHEL)

Part D Score Sheet Form no. SRF(I)01 page 14 to 17
(to be filled by BHEL)

The set of formats to be filled by different category of suppliers is as follows:

| Sl.No | Supplier Category | Formats |
|-------|--|--|
| 1. | Indian Suppliers (manufacturers) | - Organisational Information |
| | | - Quality System |
| | | - Technical Competence |
| 2. | Indian Stockist/ Trader/ Distributor/ Dealer/ Authorised Agent/ Channel partner/ Indian Sales office or Subsidiary of registered foreign principal | - Organisational Information SRF(I)01- Part A (page 1 to 10 except Sl. No. 5.1, 5.2, 6.6, 6.7, |
| | | 7 & 8) |

- 7. All columns are to be filled up properly in the space provided for. Wherever it is not applicable, please mention "Not Applicable". The form is to be signed by the authorised signatory.
- 8. A separate sheet may be attached if the space provided is insufficient or additional information is to be given. Please put proper identification tag on the separately attached sheet.
- 9. Please ensure that all required enclosures are attached with the filled up Supplier Registration Form and all enclosures are numbered & list of enclosures is given as required.
- 10. As multiple copies of the application forms are required for processing at our end, please do not spiral bound the application forms or its enclosures and instead send them in two hole clip flat file.
- 11. Incomplete forms will be rejected.
- 12. Any information / clarification required by BHEL during evaluation must be given expeditiously.
- 13. Please note that if you are registered and participate in Tender process and qualify to get order from BHEL, your performance based on Quality of your product, delivery performance and service rendered will be evaluated inline with Chapter VI.
- Please fill up the check- list given on next page and send along with the Supplier Registration Forms to BHEL.
- 15. If you are attaching a document in a language other than Hindi/ English, a self attested Hindi/ English translated document may please be also attached.



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Check List for Indian Supplier Registration Form

| Document No. | AA:MM:SR:01 |
|--------------|-------------|
| Revision No. | 01 |
| Page No. | II of II |

| Sl.No. | Check-Point | Yes/No |
|--------|---|--------|
| 1. | Information against all points under "Organizational Information" (Part-A) has been given. | |
| 2. | All enclosures and supporting documents have been enclosed. | |
| 3. | Summary list of enclosures has been furnished as per S.N.10 of Organisational Information form no. SRF (I) 01 & S.N 12 of Quality system form no. SRF (I) 01. | |
| 4. | Are you an ISO 9001accredited supplier? | |
| 5. | If yes, have you enclosed "Table of Contents" of your Quality Manual and copy of ISO 9001 accreditation certificate? | |
| 6. | Have you filled up Quality System format given in Part B? | |
| 7. | Technical requirements, specifications, drawings, standards have been received from BHEL before filling up Technical Competence, Part C. | |
| 8. | All the parts of the form & enclosures have been signed by Authorised Signatory. | |
| 9. | Have you attached EFT details? (In original, Certified by the bank) | |
| 10. | If you are seeking registration for a MSME company (as per MSME Act of Government of India), have you attached requisite certificate as per Act? | |

| | Signature & seal |
|-------|------------------------|
| Date: | |
| | (Authorised Signatory) |

Note: This check list is to be attached with the filled up Supplier Registration Form.

FORM NO. SRF(I) 01 (INDIAN SUPPLIER)

ANNEXURE - 5

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INFORMATION WITH * MARKS IS SCOREABLE.

PART- A: ORGANISATIONAL SOUNDNESS

ALL COLUMNS SHOULD BE PROPERLY FILLED IN THE SPACE PROVIDED FOR, WHEREVER IT IS NOT APPLICABLE, PLEASE WRITE "NOT APPLICABLE". INCOMPLETE OR INCORRECT FORMS MAY NOT BE CONSIDERED. PLEASE ATTACH SEPARATE SHEET, IF SPACE AVAILABLE IS INADEQUATE.

ALL THE PAGES OF THE FORM ARE TO BE SIGNED ALONGWITH SEAL BY THE AUTHORISED SIGNATORY

| ORGANISATIONAL INFORMATION | | | | | |
|--|--|------------------|-----------------------------|--|--|
| NAME AND CORRESPONDENCE ADDRESS OF THE SUPPLIER SEEKING REGISTRATION:- | | | | | |
| | PRODUCTS / SYSTEMS / SEI LIED FOR : | RVICES FOR WHICH | REGISTRATION IS | | |
| SL. NO. | DESCRIPTION | SIZE & RANGE | MFG. STD/ IS / DIN /BS ETC. | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| SUPI | PLIER'S AUTHORISED SIGNA | ATORY I | BHEL CERTIFIED ASSESSOR | | |

FORM NO. SRF(I) 01 (INDIAN SUPPLIER)

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| ORGANISATIONAL INFORMATION | | | | |
|----------------------------|--|--|--|--|
| 2.0 | GENERAL INFORMATION | | | |
| 2.1 | NAMES OF THE WORKS/Dimentioned: | IVISION (Products manufactured at each works to be | | |
| | ADDRESS | : | | |
| | E - Mail | : | | |
| | TELEPHONE | : Landline | | |
| | | Mobile | | |
| | FAX | : | | |
| 2.2 | NAME OF CHIEF EXECUTIVE PROPRIETOR / PARTNER & | | | |
| 2.3 | DETAILS OF AUTHORISED S | IGNATORY FOR SEEKING CLARIFICATION: | | |
| | NAME | : | | |
| | DESIGNATION | : | | |
| | E - Mail | : | | |
| | TELEPHONE | : Landline | | |
| | | Mobile | | |
| | FAX | : | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| CIII | ODI IER'S ATTHORISED SIGN | ATORY BHEL CERTIFIED ASSESSOR | | |

FORM NO. SRF(I) 01 (INDIAN SUPPLIER)

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ORGANISATIONAL INFORMATION

3.0 OWNERSHIP INFORMATION: DOCUMENTS TO BE FURNISHED

3.1 GOVT. OF INDIA UNDERTAKING:

OR

STATE GOVT. UNDERTAKING :

OR

LIMITED COMPANY, : MEMORANDUM AND

ARTICLES OF ASSOCIATION

OR

PRIVATE COMPANY : MEMORANDUM AND

ARTICLES OF ASSOCIATION

OR

CO-OPERATIVE SOCIETY, : SOCIETY RULES AND

BYE LAWS

OR

PARTNERSHIP FIRM, : PARTNERSHIP DEED

OR

PROPRIETORSHIP, : PROFESSION TAX REGN.

AND MUNICIPAL REGN.

ANY OTHER (SPECIFY) :

3.2 NATURE OF BUSINESS

(MANUFACTURING UNIT/

ENGG CONSULTANT/ EPC CONTRACTOR)

(AGENTS/DISTRIBUTORS/STOCKISTS/DEALERS/

TRADERS/ INDIAN SUBSIDIARY/ CHANNEL PARTNER – attach authorization

certificate of principal)

3.3 YEAR OF ESTABLISHMENT :

* 3.4 YEAR OF COMMENCEMENT OF BUSINESS :

SUPPLIER'S AUTHORISED SIGNATORY BHEL CERTIFIED ASSESSOR

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ORGANISATIONAL INFORMATION 4.0 REGISTRATION PARTICULARS (FURNISH DETAILS AND ENCLOSE COPY OF CERTIFICATE FOR THE FOLLOWING) 4.1 PERMANENT ACCOUNT NO 4.2 CENTRAL SALES TAX REGN NUMBER : 4.3 STATE SALES TAX / TIN NUMBER 4.4 EXCISE DUTY REGN NUMBER 4.5 EXCISE CONTROL CODE NUMBER 4.6 SERVICE TAX REGN NUMBER 4.7 CATEGORY AS PER MSMED ACT : MICRO/ SMALL/ MEDIUM REGN NO. VALID UPTO (Attach Certificate) **5.0 TOTAL ORGANISATIONAL STRENGTH**: (ATTACH ORGANISATION CHART) GRADUATE DIPLOMA SKILLED NON-SKILLED ENGINEERING : MANUFACTURING : **OUALITY** COMMERCIAL / SERVICE AFTER SALES:

OTHERS :

TOTAL :

* 5.1 POWER BACKUP : YES/ NO

(GIVE DETAILS)

* 5.2 DOES THE COMPANY SELL ITS PRODUCT DIRECTLY: YES/NO

SUPPLIER'S AUTHORISED SIGNATORY BHEL CERTIFIED ASSESSOR

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YES / NO

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ORGANISATIONAL INFORMATION

6.0 OTHER PARTICULARS:

(FURNISH DETAILS AND ENCLOSE DOCUMENTARY EVIDENCE/ COPY OF CERTIFICATE FOR THE FOLLOWING)

- * 6.1 IF THE COMPANY IS ALREADY REGISTERED WITH ANY OF BHEL UNITS, GIVE :
 - 6.1.1. BHEL UNIT'S NAME:
 - 6.1.2. SUPPLIER REGN. CODE NO.:
 - 6.1.3. ITEMS FOR WHICH REGISTERED & THEIR SPECIFICATION (ENCLOSE PROOF OF SUCCESSFUL EXECUTION OF ONE OR MORE PURCHASE ORDERS):
- * 6.2 IS THE COMPANY APPROVED BY

ASME / NTPC / NPC / EIL / DGS&D / RAILWAYS /

IBR / LLOYDS ETC FOR INTENDED

MATERIAL CATEGORY?:

(ENCLOSE DOCUMENTARY EVIDENCE)

* 6.3 IS THE COMPANY ISO 9001 APPROVED? : YES / NO (ENCLOSE CERTIFICATE & TOC OF QUALITY SYSTEM) :

* 6.4 IS THE COMPANY AN ISO 14000 APPROVED? : YES / NO (ENCLOSE CERTIFICATE) :

- * 6.5 IS THE COMPANY OHSAS 18000 APPROVED?: YES / NO (ENCLOSE CERTIFICATE)
- * 6.6 TECHNICAL COLLABORATOR: (FOREIGN OR INDIGENOUS) (ENCLOSE DOCUMENTARY EVIDENCE)
- * 6.7 R&D SET UP
- 6.8 DIRECTORS / PARTNERS, IF RELATED TO ANY

BHEL EMPLOYEE.

NAME : STAFE NO. : DESIGNATION : Unit & DEPARTMENT :

RELATIONSHIP:

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

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ORGANISATIONAL INFORMATION

6.9 IF ANY EX-BHEL PERSONNEL IS EMPLOYED BY THE COMPANY, MENTION HIS / HER DETAILS OF LAST POSTING.

NAME : STAFF NO. : DESIGNATION :

UNIT & DEPARTMENT :

DATE OF LEAVING SERVICE:

6.10 COMPANY'S WEEKLY HOLIDAYS :

WORKS OFFICE

6.11 EXPERIENCE LIST:

(ATTACH LIST OF PRESENT CUSTOMERS WITH NAME & ADDRESS FOR OFFERED / SIMILAR TYPE & SIZE OF ITEM / EQUIPMENT FOR WHICH REGISTRATION HAS BEEN SOUGHT AND WITH WHOM YOU HAVE CONTINUOUS BUSINESS SINCE LAST THREE YEARS. ALSO ATTACH PERFORMANCE CERTIFICATES ISSUED BY ANY TWO CLIENTS FOR SUCCESSFUL EXECUTION OF THE CONTRACTS FOR LAST TWO YEARS- FOR PEM)

- *6.12 DETAILS OF PENDING LEGAL ISSUES ON CONTRACTUAL ASPECTS WITH CUSTOMER , IF ANY
- 6.13 The following information of Bank Account of the Company, duly endorsed by the Bank (required for Electronic Fund Transfer –EFT/RTGS) is to be submitted
 - 1. Name of the Company
 - 2. Name of Bank
 - 3. Name of Bank Branch
 - 4. City/Place
 - 5. Account Number
 - 6. Account type
 - 7. IFSC code of the Bank Branch
 - 8. MICR Code of the Bank Branch
 - 9. Details of other Bankers (for reference purpose only)

NOTE:

(i) Suppliers who have already submitted the above information are requested to submit a copy of the same.

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

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|--|-----------------|
| | Page 7 of 17 |
| ORGANISATIONAL INFORMATION | ON |
| 7.0 MANUFACTURING FACILITIES: | |
| *7 1 LIST OF MANUFACTURING FACILITIES/FOURME | ENTS (INCLUDING |

*7.1 LIST OF MANUFACTURING FACILITIES/EQUIPMENTS (INCLUDING MATERIAL HANDLING FACILITY)

| SL. NO | DESCRIPTION OF MACHINE/EQUIPMENT | QUANTITY | MAKE & YEAR OF INSTALLATION | REMARKS | |
|-----------|-------------------------------------|----------|--------------------------------|---------|--|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

IN CASE OF SPACE LIMITATION, PLEASE ENCLOSE ANNEXURE / CATALOGUE WITH TAG

* 7.2 IF IN-HOUSE MFG FACILITIES NOT AVAILABLE, INFORM SOURCE OF MFG. DETAILS ALONGWITH THEIR FACILITIES & EXPERIENCE

| SL. NO | PROCESS OUTSOURCED | NAME OF THE COMPANY | DESCRIPTION OF MACHINE / EQUIPMENT | REMARKS |
|-----------|-----------------------|---------------------------|------------------------------------|---------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
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IN CASE OF SPACE LIMITATION ENCLOSE ANNEXURE / CATALOGUE WITH TAG

* 7.3 RATIO OF OUTSOURCED COST TO TOTAL PRODUCTION VALUE:

| SUPPLIER'S AUTHORISED SIGNATORY | BHEL CERTIFIED ASSESSOR | |
|---------------------------------|-------------------------|--|

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|---------------|-----|-----|-----|-----|------|----|---|---|----------|
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| ORGANISATIONAL INFORMA TION | |
|-----------------------------|--|
|-----------------------------|--|

8.0 INSPECTION & TESTING FACILITIES:

* 8.1 LIST OF INSPECTION & TESTING FACILITIES / EQUIPMENT

| SL. | DESCRIPTION OF | NOS. | MAKE & YEAR OF | LAST DATE OF |
|-----|---------------------|------|----------------|--------------|
| NO | FACILITY/ EQUIPMENT | | MANUFACTURING | CALIBERATION |
| | & CAPACITY | | | |
| | | | | |
| | | | | |
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IN CASE OF SPACE LIMITATION ENCLOSE ANNEXURE / CATALOGUE WITH TAG

* 8.2 IF IN-HOUSE TESTING FACILITIES NOT AVAILABLE, INDICATE SOURCE OF TESTING ALONGWITH THEIR FACILITIES & EXPERIENCE

| TEST | SOURCE | DESCRIPTION OF | APPROVAL OF EQUIPMENT/ |
|------|---------|---------------------|------------------------|
| | OF | FACILITY/ EQUIPMENT | PROCESS/PERSONNEL |
| | TESTING | & CAPACITY | QUALIFICATION |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | TEST | OF | OF FACILITY/ EQUIPMENT |

IN CASE OF SPACE LIMITATION ENCLOSE ANNEXURE / CATALOGUE WITH TAG

Note:

In case of outsourcing of major testing such as NDT, Electrical & Mechanical Testing, no marks will be awarded. However, material composition testing by chemical method from recognized laboratory shall not attract negative marking

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| | ORGANISATIO | NAL INFO | RMA TION | | rage 9 01 17 |
|-------|---|---------------|---------------|---------------|--------------|
| | FINANCIAL INFORMATION | FOR THE PR | EVIOUS FOU | IR YEARS | |
| 9.0 | Parameter | Year 1 | Year 2 | Year 3 | Year 4 |
| | | (Years in asc | ending order, | Money value i | n Rs. Lakhs) |
| * 9.1 | NET WORTH (Share Capital +Reserves) | | | | |
| | Growth over previous year (%) | | | | |
| 9.2 | LONG TERM DEBT / LOAN | | | | |
| * 9.3 | DEBT EQUITY RATIO Long term Debt (9.2) Net worth (9.1) | | | | |
| 9.4 | INVESTMENT IN: Land & Building | | | | |
| | Plant & Machinery | | | | |
| | Other Fixed Assets | | | | |
| | NET CURRENT ASSETS a) Cash on hand | | | | |
| | 1 b) Account receivable | | | | |
| | c) Inventories | | | | |
| 0.5* | Total | | | | |
| 9.5* | CURRENT LIABILITY a) Sundry creditors | | | | |
| | b) Interest accrued but not due | | | | |
| | c) Other liabilities | | | | |
| | Total | | | | |
| | * QUICK RATIO CA - INVENT. {9.5(1)-9.5(1)c} Current liability {9.5 (2)} | | | | |
| * 9.6 | SALES Growth over previous year (%) | | | | |
| * 9.7 | PROFIT BEFORE TAX | | | | |
| | Growth over previous year (%) | | | | |
| * 9.8 | Whether the supplier has been ref any other Govt agency (If YES, | | | | YES / NO |
| * 9.9 | Whether the supplier is a potential enclose details) | | • | | YES / NO |

NOTE: 1. Copies of annual accounts (Balance Sheet) for the last four years (or from date of incorporation which ever is less) along with audit report are to be submitted. The above details shall be highlighted in the Balance Sheet.

 Status of Tax assessments done under various laws (Income Tax, VAT/Sales Tax, Excise & Service Tax, Custom) and details of disputes pending, if any, with these authorities to be submitted.

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ORGANISATIONAL INFORMATION

10. LIST OF ENCLOSURES (Tags to be put on enclosures):

(i) MEMORANDUM AND ARTICLES OF ASSOCIATION /
SOCIETY RULES AND BYE LAWS / PARTNERSHIP DEED/ : YES / NO
PROFESSION TAX REGN & MUNICIPAL REGN.

(ii) Copy of certificate of following:-

PERMANENT ACCOUNT NO : YES / NO CENTRAL SALES TAX REGN NUMBER : YES / NO STATE SALES TAX / TIN NUMBER : YES / NO EXCISE DUTY REGN NUMBER : YES/NO EXCISE CONTROL CODE NUMBER : YES / NO SERVICE TAX REGN NUMBER : YES / NO REGN NUMBER OF CATEGORY AS PER MSMED ACT : YES / NO ORGANISATION CHART : YES / NO

(iv) If registered with any other BHEL Unit,

• LETTER OF REGISTRATION WITH BHEL UNIT : YES / NO

PROOF OF SUCCESSFUL EXECUTION OF ONE OR

MORE PURCHASE ORDERS : YES / NO

(v) Letter of approval from ASME / NTPC / NPC / EIL / DGS&D

/ RAILWAYS /IBR / LLOYDS ETC : YES / NO

(vi) Accreditation certificate for

EFT Bank's certificate

(iii)

(vii)

(ix)

(x)

(xi)

(viii)

ISO: 9001 : YES / NO TOC of Quality System Manual : YES / NO ISO: 14000 : YES / NO OHSAS, ISO 18000 : YES / NO Letter regarding technical collaboration : YES / NO Experience List / Performance certificate : YES / NO Balance Sheet for the last four years along with audit Report : YES / NO Principal's authorization in case of dealers/ agents : YES / NO

I /WE GIVE THE UNDERTAKING THAT BHEL DRAWINGS & SPECIFICATIONS SHALL NOT BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF BHEL AND/ OR FOR SUPPLY OF ANY MATERIAL, PRODUCT OR SERVICES DIRECTLY OR INDIRECTLY TO ANY OTHER CUSTOMER.

Maximum Marks = 50 Negative Marks = -13

Minimum Qualifying marks = 30

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

: YES / NO

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FORM NO. SRF(I) 01 Part B (QUALITY SYSTEM):

| | | evidences if written proce | | (Tick if available & submit | REMARKS | |
|-----|--|----------------------------|----------|-----------------------------|--|--|
| | | Written Procedure | Practice | evidences) | | |
| 1* | Incoming Material Control System | | | | Furnish a copy of system and organization. | |
| 2* | In process control | | | | Furnish at least one work instruction & record of process control parameter | |
| 3* | Manufacturing / Testing Procedure Qualification | | | | Procedure Qualification specification may be submitted | |
| 4* | Personnel qualification for 3 above. | | | | Record of Personnel qualification (PQR) to be submitted | |
| 5* | Calibration system | | | | Submit list of instrument & their calibration status | |
| 6* | System of Identification & Traceability of materials, tools, jigs, fixtures & processed components, etc. | | | | Copy of procedure to be submitted | |
| 7* | System of Storage, Preservation, Painting & packing | | | | Copy of procedure to be submitted | |
| 8* | System of NCR disposition & corrective preventive action | | | | Two copies of NCR & CAPA | |
| 9* | Customer complaints handling system | | | | Submit list of customer complaints & status for the last three years | |
| 10* | Safety measures | | | | Submit copy of safety system & Record of accidents for last three years | |
| 11 | Any other quality initiative | | | | | |

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FORM NO. SRF(I) 01 Part B (QUALITY SYSTEM):

12. LIST OF ENCLOSURES

- (i) Copy of system of ontrol incoming materials and organization chart
- (ii) Copy of at least one process control work instruction
- (iii) Record of process control parameter
- (iv) Copy of at least one Procedure Qualification specification
- (v) Record of Personnel qualification (PQR)
- (vi) List of instrument & their calibration status
- (vii) Copy of procedure for Identification & Traceability of materials, tools, jigs, fixtures & processed components, etc.
- (viii) Copy of procedure for Storage/ preservation/ painting & packing
- (ix) Copies of two NCRs and their CAPA.
- (x) List of customer complaints & status for the last three years
- (xi) Copy of safety system
- (xii) Record of accidents for last three years

Maximum Marks = 25 Minimum Qualifying marks = 15

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FORM NO. SRF(I)01

Part C: TECHNICAL COMPETENCE

Technical competence shall be evaluated in two parts viz. common competence and product/ material category specific competence.

(i) COMMON TECHNICAL COMPETENCE (Max Marks: 10)

| TECHNICAL COMPETENCE (where design specification is given by BHEL) | MARKING RANGE | SUPPLIER RESPONSE (ALONG WITH SUPPORTING DOCUMENTS)# | MARKS BY BHEL |
|--|------------------|--|---------------|
| 1. Supplier understands the product specification. | (0-3) | | |
| 2. Supplier understands the inspection requirements. | (0-2) | | |
| 3. Supplier has process capability to achieve the product specification/dimensional requirement. | (0-3) | | |
| 4. Supplier has experienced manpower to carry out | (0-2) | | |
| the job. TOTAL MARKS OUT OF POSSIBLE (10) = | | | |

OR

| | | PROCE | DURE | SYSTEN EFFEC | | RECOR | DS |
|---|------------------|---|------------------|---|------------------|---|------------------|
| TECHNICAL COMPETENCE (where performance specification is given by BHEL) | MARKING RANGE | SUPPLIER RESPONSE (ALONG WITH SUPPORTING DOCUMENTS)# | MARKS BY BHEL | SUPPLIER RESPONSE (ALONG RATH SUPPORTING DOCUMENTS)# | MARKS BY BHEL | SUPPLIER RESPONSE (ALONG WITH SUPPORTING DOCUMENTS)# | MARKS BY BHEL |
| 1. Design capability | (0-3) | | | | | | |
| 2. Adequacy of quality assurance plan | (0-2) | | | | | | |
| 3. Process capability for components | (0-3) | | | | | | |
| 4. Adequate of testing | (0-2) | | | | | | |
| TOTAL MARKS OUT OF POSSIBLE (10) Average of Total (Total/3) = | | | | | | | |

(ii) PROUCT/ MATERIAL CATEGORY SPECIFIC TECHNICAL COMPETENCE

(Max Marks: 15)

Unit MISCC to structure the parameters to be considered for the technical competence depending on material category. The score of individual parameter selected is to be decided by MISCC. MISCC shall identify the requirement of enclosures to be furnished by supplier Product:

| Sl. | Material | Tech Parameter | Supplier's | Remarks |
|-----|----------|----------------|------------|---------|
| No | category | | response | |
| | | | | |
| | | | | |

To be filled up only on receipt of technical requirements/specification, drawings, standards from BHEL and to be sent to BHEL for further scrutiny. Enclose documentary evidence where ever required.

LIST OF ENCLOSURES:

Maximum Marks = 25

Minimum Qualifying marks = 15

No marks is to be given by the supplier. Only supplier response along with supporting documents,

SUPPLIER'S AUTHORISED SIGNATORY

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Part D: SCORE SHEET

1. ORGANISATIONAL SOUNDNESS (for Manufacturers):

| S.N. | PARAMETER | CRITERIA | Maxm. Marks | Marks Awarded |
|------|--|---------------------------------|----------------|------------------|
| 1. | Whether all relevant information like ownership, PAN no., | Yes: 2 | | |
| | sales tax no., excise duty no., etc. submitted | No: 0 | 2 | |
| 2. | 3.4 YEAR OF COMMENCEMENT OF BUSINESS | More than 5 years: 2 | | |
| | | 1-5 years : 1 | 2 | |
| | | Less than 1 year : 0 | | |
| 3. | 5.1 POWER BACKUP | Yes : 1 | 1 | |
| | | No : 0 | | |
| 4. | 5.2 DOES THE COMPANY SELL ITS PRODUCT | Yes : 1 | 1 | |
| | DIRECTLY | No : 0 | | |
| 5. | 6.1 REGISTERED WITH ANY OF BHEL | Yes (same item) : 2 | 2 | |
| | UNITS | Yes (another item): 1 | | |
| | | No : 0 | | |
| 6. | 6.2 APPROVAL BY ASME/ NTPC/ NPC/ EIL/ DGS&D/ | Yes : 2 | 2 | |
| | RAILWAYS/ IBR/ LLOYDS ETC | No : 0 | | |
| 7. | 6.3 ISO 9001 ACCREDITATION | Yes : 3 | 3 | |
| | | No : 0 | | |
| 8. | 6.4 ISO 14000 ACCREDITATION | Yes : 1 | 1 | |
| | | No : 0 | | |
| 9. | 6.5 OHSAS - 18000 ACCREDITATION | Yes : 1 | 1 | |
| | | No : 0 | | |
| 10. | 6.6 TECHNICAL COLLABORATOR : | Yes : 1 | 1 | |
| | (FOREIGN OR INDIGENOUS) | No : 0 | | |
| 11. | 6.7 R & D SET UP | Yes : 1 | 1 | |
| | | No : 0 | | |
| 12. | 6.12 PENDING LEGAL ISSUES ON TECHNO – | Yes : -5 | 0 | |
| | COMMERCIAL ASPECTS WITH CUSTOMER | No : 0 | _ | |
| 13. | 7.1 & 7.2 MANUFACTURING FACILITIES INCLUDING | Adequate : 3 | 3 | |
| 13. | OUTSOURCING | Substantial : 2 | | |
| | OUISOURCING | Inadequate : 0 | | |
| 14. | 7.3 RATIO OF OUTSOURCED COST | Less than 10% : 2 | 2 | |
| 14. | TO TOTAL PRODUCTION VALUE | 10 to 30 % : 1 | | |
| | TO TOTAL FRODUCTION VALUE | More than 30% : 0 | | |
| 15. | 8.1 INSPECTION & TESTING | Adequate : 2 | 2 | |
| 15. | FACILITIES | Adequate : 2 Substantial : 1 | 2 | |
| | FACILITIES | | | |
| 1.0 | 0.2. OLUMOOLID OING OF MALOD MEGMING FACULTY | 1 | 1 | |
| 16. | 8.2 OUTSOURCING OF MAJOR TESTING FACILLTY | Yes : 0 | 1 | |
| | (Refer Note) | No : 1 | 2.5 | |
| | TOTAL | | 25 | |

1. ORGANISATIONAL SOUNDNESS (for Indian Stockist/ Trader/ Distributor/ Dealer/ Authorised Agent/ Channel partner/ Indian Sales office or Subsidiary of registered foreign principal):

| S.N. | PARAMETER | CRITERIA | Maxm. Marks | Marks Awarded |
|------|--|-----------------------|----------------|------------------|
| 1. | Whether all relevant information like ownership, PAN no., | Yes: 7 | 7 | |
| | sales tax no., etc. submitted (clause 6.0 of chapter V to be | No: 0 | | |
| | referred in this regard) | | | |
| 2. | 3.4 YEAR OF COMMENCEMENT OF BUSINESS | More than 3 years: 2 | | |
| | | 1-3 years : 1 | 2 | |
| | | Less than 1 year : 0 | | |
| 3. | 6.1 REGISTERED WITH ANY OF BHEL | Yes (same item) : 2 | 2 | |
| | UNITS | Yes (another item): 1 | | |
| | | No : 0 | | |
| 4. | 6.2 APPROVAL BY ASME/ NTPC/ NPC/ EIL/ DGS&D/ | Yes : 2 | 2 | |
| | RAILWAYS/ IBR/ LLOYDS ETC | No : 0 | | |
| 5. | 6.3 ISO 9001 ACCREDITATION | Yes : 2 | 2 | |
| | | No : 0 | | |
| 6. | 6.12 PENDING LEGAL ISSUES ON TECHNO – | Yes : -5 | 0 | |
| | COMMERCIAL ASPECTS WITH CUSTOMER | No : 0 | | |

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Part D: SCORE SHEET

2. FINANCIAL INFORMATION (for Manufacturers):

| S.N. | PARAMETER | CRITERIA | Maximum Marks | Marks Awarded |
|------|--|--|------------------|------------------|
| 1. | 9.1 Growth of Net Worth over previous year (%) Average of three years to be worked out | More than 20 %: 5 10 - 20 %: 4 5 - 10 %: 3 > 0 & < 5 %: 2 | 5 | |
| | | 0 or below : 0 | | |
| 2. | 9.3 DEBT EQUITY RATIO Long term Debt (9.2) Net worth (9.1) | 1:1 : 5 1.1 upto 1.5:1 : 4 1.6 upto 2.0:1 : 3 2.0 & above:1 : 2 | 5 | |
| 3. | 9.5 QUICK RATIO CA - INVENTORIES {9.5(1)-9.5(1)c} Current liability {9.5 (2)} | 1:1 : 5 1:1 upto 1.5 : 4 1:1.5 upto 1.75 : 3 1:1.75 upto 2.5 : 2 1:>2.5 : 0 | 5 | |
| 4. | 9.6 Growth in Sales over previous year (%) Average of three years to be worked out | More than 35% : 5 20 -35 % : 4 10 - 20 % : 3 5 - 10 % : 2 > 0 & < 5 % : 1 0 or negative : 0 | 5 | |
| 5. | 9.7 PROFIT BEFORE TAX Growth over previous year (%) | More than 20 % : 5 10 - 20 % : 4 5 - 10 % : 3 > 0 & < 5 % : 2 0 or below : 0 | 5 | |
| 6. | 9.8 Whether the supplier has been referred to BIFR / NCLT/ any other similar Govt agency | Yes: -5 No: 0 | 0 | |
| 7. | 9.9 Whether the supplier is a potentially sick company | Yes: -3 No: 0 | 0 | |
| | TOTAL | | 25 | |

Note: If the supplier is new in business and does not have past data, then the evaluation will be done on the basis of information provided by him and will be decided by MISCC.

2. FINANCIAL INFORMATION (for Indian Stockist/ Trader/ Distributor/ Dealer/ Authorised Agent/ Channel partner/ Indian Sales office or Subsidiary of registered foreign principal):

| S.N. | PARAMETER | CRITERIA | Maximum Marks | Marks Awarded |
|------|--|--------------------|------------------|------------------|
| 1. | 9.6 Growth in Sales over previous year (%) | More than 35% : 5 | 5 | |
| | Average of three years to be worked out | 20 -35 % : 4 | | |
| | | 5 - 20 % : 3 | | |
| | | >0 - 5 % : 2 | | |
| | | 0 or negative : 0 | | |
| 2. | 9.7 PROFIT BEFORE TAX | More than 20 % : 5 | 5 | |
| | | 5 – 20 % : 4 | | |
| | Growth over previous year (%) | >0 - 5 % : 3 | | |
| | | 0 or below : 0 | | |

| BHEL CERTIFIED ASSESSOR | | |
|-------------------------|--|--|

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<u>Part D</u>: SCORE SHEET 3. <u>QUALITY SYSTEM</u>:

| S.N. | PARAMETER | CRITERIA | Maxm. Marks | Marks Awarded |
|------|---|---|----------------|------------------|
| 1. | Incoming Material control System | System availability: Yes: 1 No:0 | 1 | |
| | | Availability of Organisation chart Yes: 1 | 1 | |
| 2. | Process control | No:0 Work instruction available: Yes: 1 No:0 | 1 | |
| | | Record of process Control: Available: 2 Partial record: 1 Not available: 0 | 2 | |
| 3. | Manufacturing / Testing Procedure Qualification | Procedure Qualification Specification : Adequate : 3 In adequate: 1 Not available : 0 | 3 | |
| 4. | Personnel qualification | Record of PQR: Adequate: 3 In adequate: 1 Not available: 0 | 3 | |
| 5. | Calibration system | Adequate : 3 In adequate: 1 Not available : 0 | 3 | |
| 6. | System of Identification & Traceability of materials, tools, jigs, fixtures & processed components, etc. | Procedure available : Adequate : 2 In adequate: 1 Not available : 0 | 2 | |
| 7. | System of Storage/ preservation/ painting & packing | Procedure available : Adequate : 2 In adequate: 1 Not available : 0 | 2 | |
| 8. | System of NCR disposition & corrective preventive action | Two copies of NCR & CAPA Available :2 Not available : 0 | 2 | |
| 9. | Customer complaints handling system | System available : Yes: 1 No : 0 | 1 | |
| | | Complaints registered & resolved : 2 Complaints registered & partially resolved : 1 Complaints not registered or not resolved : 0 | 2 | |
| 10. | Safety measures | System available : Yes: 1 No : 0 | 1 | |
| | | Record available : Yes: 1 No : 0 | 1 | |
| _ | TOTAL | | 25 | |

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<u>Part D</u>: SCORE SHEET 4. TECHNICAL COMPETENCE

Column no. 1 to 4 to be filled by MISCC before sending to supplier. Column no. 5 to be filled by BHEL certified Assessor after evaluation of supplier response.

| Sl. No (1) | Parameter (2) | Scoring criteria (3) | Maximum Marks (4) | Marks obtained (5) |
|---------------|---------------|----------------------|----------------------|--------------------|
| | | | | |
| | | | | |
| | | | | |
| | TOTAL | | 25 | |

SUMMARY:

| Sl. No | Criteria | Maxm Marks | Qualifying marks * | Marks obtained | Recommendation for registration |
|-----------|--------------------------|---------------|-----------------------|-------------------|----------------------------------|
| 1. | Organisational Soundness | 50 | 30 | | Recommended: |
| | Financial Information | | | | |
| 2. | Quality System | 25 | 15 | | Permanent code |
| 3. | Technical Competence | 25 | 15 | | /Development code/ Trial code |
| | TOTAL | 100 | 60 | | That code |
| | | | | | Not recommended |

^{*}Minimum Qualifying Score in Each category shall be 60%.

REGISTRATION CRITERIA:

| Sl. No | Score | Recommendation |
|-----------|--------------|--|
| 1. | More than 90 | Supplier is to be registered and given Permanent code, |
| | | Normally no visit is called for. |
| 2. | >75 | Supplier may be visited if recommended by MISCC or to |
| | <=90 | be registered and given permanent code. |
| 3. | >=60 | Supplier may carry out suggested improvements if |
| | <=75 | advised by MISCC Supplier's visit is mandatory. Trial/ |
| | | Development code may be given. |
| 4. | Less than 60 | Not to be registered |

| <u>Note:</u> Indian Stockist/ Trader/ Distributor/ Dealer/ Authorised Agent/ Channel partner/ Indian Sales office or Subsidiary of registered foreign principal are to be awarded marks on pro-rata basis and registered accordingly. | | | | | | |
|---|----------------------------|----------------------------|----|--|--|--|
| Signatures: | MISCC and Suppler Evaluati | on Team (in case of visit) | | | | |
| | 1) | 2) | 3) | | | |
| | 4) | 5) | 6) | | | |
| BHEL CERTIFIED ASSESSOR | | | | | | |

ANNEXURE - 6

NON-DISCLOSURE AND PROPRIETARY INFORMATION AGREEMENT

BETWEEN

| | (Name | of th | e Vendor |) . , ha | ving | its | register | ed office | es in |
|------------------|------------|----------|---------------------|-----------------|-------|-------|----------|-----------|--------|
| | (Addr | ess of V | 'endor), reg | istered | unde | r the | no | | |
| of the Companies | register o | f | | | (Na | me o | f Place | and Cou | ntry), |
| capital stock | of _ | | _(Value), | with | a | plac | e of | business | s in |
| | (Na | ame of | Place and | l Cou | ntry) | (here | inafter | referred | to as |
| " | (Nam | e of Ve | ndor)''); | | | | | | |

AND

Bharat Heavy Electricals Ltd a company incorporated under the Indian Companies Act 1956 having its registered offices at BHEL House, Siri Fort, New Delhi -110 049 and having one of its works at Heavy Electrical Equipment Plant, Ranipur, Haridwar-249403 (Uttarakhand), India registered under the No. 4281 of 1964-65 of the companies register of Delhi, capital stock of Rs 4895.2 million with a place of registered office in New Delhi (hereinafter referred to as "BHEL") hereinafter also referred to individually as "the Party" or collectively as "the Parties".

BACKGROUND

This Agreement sets forth the rights and obligations of the Parties with respect to the use, handling, protection and safeguarding of Proprietary Information that is disclosed by and between the Parties.

WHEREAS

A) the Parties wish to pursue exploratory discussions concerning a possible collaboration between them in relation to the Program defined in Exhibit 1;

B) during the ensuing discussions and negotiations it may occur that either Party discloses to the other technical, financial or business information of a proprietary or confidential nature, which the Parties intend to protect against, making it available, by any means to any third person, and other unauthorized use and/or further disclosure by the recipient, in accordance with the terms and conditions set forth herein;

NOW, THEREFORE, the Parties have agreed as follows:

- 1. The term "Proprietary Information" shall mean any information or data of whatsoever kind of a confidential proprietary or nature, including but not limited to, commercial information, know how and technical information in the form of designs, drawings, concepts, requirements, specifications, software, interfaces, components, processes, or the like, that have been or will be disclosed by either Party to the other pursuant to this Agreement, either in writing, orally or other form, which is designated as "Proprietary" or "Confidential" by the disclosing Party by means of formal declaration or an appropriate stamp, legend or any other written or orally notice.
- 2. Proprietary Information may be conveyed, without limitation, through any written or printed documents, samples, models, electronic form on disk, tape, other storage media or any other means of disclosing such Proprietary Information that either Party may elect to use during the life of this Agreement, but if an originating Party originally discloses information orally or visually, the receiving Party will protect such information as Proprietary Information to the extent that the originating Party:
 - identifies the Information as Proprietary at the time of original disclosure,
 - summarizes the Proprietary Information in writing.

Information stored in electronic form on disk, tape, other storage media will be adequately marked if a proprietary legend displays when the information originally runs on a computer system and when the information is printed from its data file. Proprietary Information also includes any information which can be obtained by examination, testing or analysis of any hardware or material substance or any component part of such hardware or material substance provided by the Disclosing Party even though the requirements in Clause 1 for marking and designation have not been fulfilled.

- 3. Each Party, to the extent of its rights to do so, shall disclose to the other only the Proprietary Information which the disclosing Party deems appropriate to fulfil the objectives of this Agreement. The Parties hereby represent that the disclosure of Proprietary Information by and between themselves shall be made in compliance with, and subject to the laws and regulations of the Disclosing Party's country.
- 4. The receiving Party hereby agrees and covenants that, from the effective date of this Agreement until the expiry date as per article 11 and the following period as per article 12, the Proprietary Information that either Party receives from the other shall:
 - a) be protected and kept in strict confidence by the receiving Party which must use the same degree of care it uses to protect its own confidential information and in no case less than a reasonable care;
 - b) be only disclosed to and used by those persons within the receiving Party's organization or that of its parent or controlled companies who have a need to know and solely for the purposes specified in this Agreement, and be treated by such persons or entities with the same degree of care and subject to the same restrictions;
 - c) to procure that each third party to whom Proprietary Information is disclosed under this Agreement is made aware of the provisions of this Agreement prior to such disclosure to it and that each such third party is

- bound by obligations of confidentiality which are no less onerous than those contained in this Agreement;
- d) neither be disclosed nor caused to be disclosed or made available, either directly or indirectly, to any third Party or persons other than those mentioned in subparagraph b) above or other persons upon which both of the contractual Parties shall agree in an amendment to this Agreement;
- e) not to copy, reproduce or reduce to writing any part of such Proprietary

 Information except as may be reasonably necessary for the purpose referred
 to in the Recitals of this Agreement

PROVIDED THAT the Receiving Party shall be entitled to make any disclosure required by court order or government or regulatory requirement of the Disclosing Party's Proprietary Information subject to notifying the Disclosing Party as soon as possible of such requirement

- 5. Any Proprietary Information and copies thereof disclosed by either Party to the other shall remain the property of the disclosing Party and shall be immediately returned or destroyed by the receiving Party upon request.
- 6. The receiving Party shall have no obligations or restrictions with respect to any Proprietary Information for which the receiving Party can prove that:
 - a) is in or which comes into the public domain otherwise than as a result of a breach of this Agreement by any person to whom a disclosure of Proprietary Information is made as permitted under this Agreement or of any other duty of confidentiality relating to the Proprietary Information of which the Receiving Party has knowledge; or
 - b) it has been in its possession without restriction at the time of the disclosure, as evidenced by written documentation in its files; or
 - c) it has been lawfully received from a third Party without breach of this Agreement; or

- d) it has been or is published without violation of this Agreement; or
- e) it has been independently developed in good faith by employees of the receiving Party who did not have access to the Proprietary Information; or
- it has not been properly declared, designated or confirmed as Proprietary or Confidential; or
- g) the protection period has expired according to articles 11 and 12 of this Agreement.
- 7. With respect to any exchange of Proprietary Information which may occur as a result of this Agreement, it is expressly understood and agreed that the persons listed in Exhibit 2 shall, on behalf of the respective Parties, be the exclusive individuals authorized to receive from and transmit to the other Party Proprietary Information under this Agreement. Each Party may replace at any time its respective authorized individuals identified in such Exhibit 2, within its own organization. Any such new designation by a Party shall be made by written notice to the other at the address indicated in such Exhibit 2.
- 8. Any Proprietary Information which is identified as "Classified Information", or whose export is subject to an export license, shall be identified as such by the disclosing Party at the time of disclosure and the disclosure, protection, use and handling thereof, shall remain subject to the security procedures and restrictions imposed by the disclosing Party's Government.
- 9. The disclosure of Proprietary Information under this Agreement by either Party to the other shall not be construed as granting to the receiving Party any right, whether express or implied by licence or otherwise, on the matters, inventions or discoveries to which such information pertains, or as granting any trademark, patents, copyrights, trade secret right or other form of intellectual property right.

- 10. Nothing in this Agreement may be construed as an obligation of either Party to disclose any Proprietary Information to the other, or to enter into any subsequent contractual relationship with such other Party.
- 11. This Agreement covers the exchange of Proprietary Information which may be made by either Party to the other until ten years from signing of the agreement or any extension thereto which may be agreed upon by the Parties in writing. Proprietary information relevant to the Program detailed in Exhibit 1, already made available to the other contractual Party before the effective date, shall also be protected under this Agreement.

It is understood by the parties that, prior to disclosure, the Disclosing Party shall have obtained any government authorisation needed for the export of the Proprietary Information

- 12. The expiry of the period contemplated in Article 11 of this Agreement shall not relieve the receiving Party from complying with the obligations imposed by Article 4 here above with respect to the use and protection of the Proprietary Information, received prior the date of such expiry, for a period of ten (10) years after such expiry.
- 13. The Parties are independent contractors. Each will bear all costs and expenses in connection with this Agreement. This Agreement is intended to facilitate only the exchange of Proprietary Information and is not intended to be, and shall not be construed to create a teaming agreement, joint venture, association, partnership, or other business organisation or agency arrangement and no Party shall have the authority to bind the other without the other Party's separate prior written agreement.
- 14. This Agreement shall be governed by and shall be interpreted in accordance with the substantive federal laws of Switzerland excluding it's choice of law rules.

Irrespective of the foregoing each Party shall remain bound by the provisions of its own national laws and regulations with respect to the transfer or use of Classified Information or information whose export is subject to an export license.

- 15. All disputes among the Parties, in connection with or arising out of the existence, validity, construction, performance and termination of this Agreement (or any terms thereof), which the Parties are unable to resolve among themselves, shall be finally settled by an Arbitration. The Arbitration shall be held in Geneva (CH) in English language, in accordance with the rules of the ICC International Chamber of Commerce by three arbitrators appointed in accordance with said rules.
- 16. The foregoing constitutes the entire Agreement among the Parties with respect to the subject matter hereof and supersedes and cancels all prior representations, negotiations, commitments, undertakings, communications, either oral or written, acceptances, understandings and agreements among the Parties with respect to or in connection with any of the matters to which such Agreement applies or refers.

| 17. | Notices toaddress: | (Name of Vendor) shall be made at the following |
|-----|---------------------------------------|---|
| | (Complete Address of V Attention: Mr. | , |
| | Notices to BHEL shall be | made at the following address: |

BHARAT HEAVY ELECTRICALS LIMITED,

HEAVY ELECTRICAL EQUIPMENT PLANT,

Ranipur, Haridwar-249403 (Uttarakhand), India

Attention: Shri B.M.Bansal, General Manager- Materials Management

18. The effective date of this Agreement shall be the date of the last signature appearing herein.

| IN WITNESS WHEREOF, each of the Parties ha | as caused this Agreement, to be executed |
|--|--|
| by its duly authorized officer. | |
| | |
| Date: | |
| | |
| Signed for and on behalf of | Signed for and on behalf of |
| | |
| (Name of Vendor) | BHEL |
| By: | By: |
| Title: | Title: |
| Signature: | Signature: |

EXHIBIT 1

| to the |
|---|
| NON-DISCLOSURE AGREEMENT |
| between |
| (Name of Vendor) |
| and |
| BHARAT HEAVY ELECTRICALS LIMITED |
| dated: |
| |
| The Non Disclosure Agreement covers the exchange of Proprietary Information which may |
| occur during the discussions and negotiations in view of a possible cooperation between |
| the Parties in the following programs: |
| -Description of Material or Services for which the order is placed |
| (Name of Vendor) list of products that require an exchange of |
| Proprietary Information which may be occur during the discussions and negotiations in |
| view of a possible cooperation for the above programs: |