



A Maharatna Company
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பாரத் ஹெவி இலெக்ட்ரிகல்ஸ் லிமிடெட்
भारत हेवी इलेक्ट्रिकल्स लिमिटेड
Bharat Heavy Electricals Limited
(A Government of India Enterprise)
Tiruchirappalli – 620 014

MATERIALS MANAGEMENT

Phone: 0431 – 257 7898, 8109; E-mail: vinatha@bhel.in; www.bhel.com

NOTICE INVITING E-TENDER

Dear Sir/ Ma'am,

Ref : 1802000804 dt 24.12.2020

Subject : Two-part **e-Tender** inviting techno-commercial and price bids for supply of **LRB wool mattress on F.O.R to Tuticorin Project Site (including testing, packing & forwarding and freight).**

Kindly submit your competitive offer as per the tender terms and conditions given in the tender document through bhel.abcprocure.com portal only.

1.	Last date/ time for receipt of tender	14:00 Hrs on dt.31.12.2020
2.	Date/ time of opening of Techno-commercial bids	14:30 Hrs on dt.31.12.2020 Change in opening date, if any, will be intimated later.
3.	Date of price bid opening	The date/ time of price bid opening will be intimated to the techno-commercial qualified tenderer separately.

General Instructions

- The tender documents shall be deemed to form an integral part of the purchase order.
- Tender can be cancelled at any stage due to unavoidable circumstances.
- Bidders are advised not to wait till the last minutes w.r.t tender closing time to submit their offer to avoid complications related with internet connectivity / network problem/ power failure etc.
- Bidders are advised take due care while quoting the technical and price bids forms in the e-procurement system.
- Bidders who have been suspended or black listed or issued with "Show Cause Notice" by BHEL, Tiruchirappalli -620014 or any other unit or GOI should declare the same in the tender. Even during the course of evaluation/ finalization of tender, if it is found that some of the parties are black listed/ barred from business transaction/ under business hold, BHEL will not consider them for further participation in the tender.
- It is advised that all the documents to be submitted are kept scanned or converted to PDF format in a separate folder on your computer before starting online submission.

- **DISCLAIMER CLAUSE:** Neither the Organization (Bharat Heavy Electricals Ltd.) nor the service provider is responsible for any failure of submission of bids due to failure of internet or other connectivity problems or reasons thereof.

Thanking you,
For **Bharat Heavy Electricals Limited**

Vinatha Sudha

Sr.Engineer / Materials Management

Fourth floor, 24 Building

B.H.E.L., Tiruchirappalli – 620 014, Tamil Nadu

Phone: 0431-257 8109

ANNEXURE-A**ACCEPTANCE OF TECHNO - COMMERCIAL TERMS AND CONDITIONS BY THE BIDDERS**

Category of the Item:	Lightly resin bonded rock wool mattress with GI /SS one side / both side wire-netting for thermal power plant
Description of the Item:	LRB Wool requirement for Tuticorin-4 project
BHEL Tender No. & Date	1802000804 dt. 24.12.2020
SI No.	Terms and conditions
1	PQR (Pre-Qualification Requirement): The bidder has to compulsorily meet the following requirements to get qualified for considering the technical offer. 1. The vendor should supply the tendered material as per BHEL specification and QAP. Vendor to confirm. 2. The vendor should have supplied the tendered material to Coal Fired Thermal Power Plant in the past and shall submit the Purchase Order Copy. 3. The vendor shall submit the GST copy.
2	Technical: The requirement is for Tuticorin-4 210 MW project. a. Supply shall be as per Specification No. 4-33-021-00833/REV 10, 4-33-021-00834/REV 09. Quality Plan SQP:SD:15 REV 01 dt 20.12.2016 to be followed. Any deviation on technical/QP/packing requirements shall specifically be mentioned with clear indication of Data Sheet No / Specification ref, Drawing, and Quality plan. Also, any deviations in the commercial terms and conditions shall be clearly spelt out. In the event of an order, any deviations, unless accepted clearly by BHEL in writing during enquiry stage itself will not be entertained and all other techno-commercial requirements will be binding on successful bidder and failure to execute the terms will lead to disciplinary action by BHEL against the said bidder. Requirement as above will be binding on all suppliers who submits offers and any comments/ deviations on this clause is not allowed. Deviations on this requirement may lead to rejection of offer itself.
3	Vendor's offer will be considered for price bid opening subject to fulfilment of PQR requirement, techno-commercial suitability and approval of vendor firm by Customer/BHEL.
4	Firm Price: The quoted / finalised rates shall be Firm till execution of the supplies. Offer with PVC clause will not be considered.
5	Price Basis: The quote shall be on FOR – Site basis, inclusive of Packing & Forwarding charges. Freight charges have to be indicated separately. Insurance charges in BHEL Scope.
6	Payment terms: 100% direct EFT payment after 60 days from the date of receipt of materials at site. Note: Any deviation in the above Payment Terms, any other conditions in payment terms or any other Payment Terms will not be accepted and offers will not be considered.
7 (a)	Liquidated damages: Delivery of the goods specified in the purchase order should be made within the time prescribed. Failure to dispatch the materials in the time as per the delivery quoted in our Purchase Order would make the supplier liable to an un-conditional LD at the rate of ½% of pending PO value per week of delay subject to maximum of 10% of the total Purchase order value.
7 (b)	LD / Penalty: Any deviation of the above LD/Penalty clause, loading will be applied to the extent to which it is not agreed by the bidder(at offered value). Loading Criteria: Loading value = ((mentioned LD in enquiry – Accepted LD in the offer by the vendor) in % x base value)
8	Guarantee / Warranty Period Guarantee clause 18months from the date of supply or 12 months from the date of actual put in use, whichever is earlier. No Deviation is permitted. If still vendor offered any deviation on the Guarantee / warranty period, it may lead to rejection of offer.

9	All taxes, duties, service taxes etc. payable as extra to the quoted price should be specifically stated, failing which the Purchaser will not be liable for payment of such Taxes and Duties.
10	Document submission/Inspection and Clearance A. Following documents to be mandatorily submitted by Supplier along with offer 1. MSME certificate, UAM Number and CA Certificate (as applicable for MSME suppliers only) 2. Local Content Certificate. Any query/clarification during enquiry stage shall be replied within three days, failing which offer may be rejected as non-responsive. B. After Placement of Purchase Order 1. Order acknowledgement to be signed and furnished by supplier within 03 days from the date of PO either by mail or in hard copy. 2. Documents (Datasheet, QPs) for approval if applicable, shall be submitted within 03 working days from the date of PO and after comment from BHEL, revised documents shall be submitted within 02 working days time. 3. Inspection call to be raised 07 days in advance from the required date of inspection. 4. Manufacturing/dispatch shall be initiated only after getting clearance from BHEL Trichy
11	Risk purchase: In case of abnormal delays (beyond the maximum late delivery period as per LD clause) or non-fulfilment of any other terms and conditions given in work order, BHEL may cancel the work order in full or part thereof, and may also make a contract of such work/service from elsewhere / alternative source at the risk and cost of the original contractor. BHEL will take all reasonable steps to complete the contract obligations from alternate source at optimum cost. If bidder does not agree to the above Risk Purchase Clause, BHEL reserves the right to reject the offer. In case for compelling reasons BHEL accepts the offer without acceptance of this clause by the bidder and in the eventuality of Risk Purchase, appropriate action will be taken as per BHEL extant rules. This will be without prejudice to any other right of BHEL under the contract. Risk & cost clause, in line with conditions of contract may be invoked in any of the following cases: 1. Contractor's poor progress of the work vis-à-vis execution timeline as stipulated in the contract, backlog attributable to contractor/ supplier including unexecuted portion of work/ supply does not appear to be executable within balance available period (#) considering its performance of execution. 2. Withdrawal from or abandonment of the work by contractor before completion of the work as per contract. 3. Non completion of work / Non-supply by the contractor within scheduled completion/delivery period as per contract or as extended from time to time, for the reason attributable to the contractor. 4. Termination of contract on account of any other reason (s) attributable to contractor. 5. Assignment, transfer, subletting of contract without BHEL's written permission resulting in termination of Contract or part thereof by BHEL. 6. Non-compliance to any contractual condition or any other default attributable to contractor. Risk and Cost amount against balance work will be calculated as follows: Risk & Cost Amount= [(A-B) + (A x H/100)] Where, A= Value of Balance scope of Work/ Supply (*) as per rates of new contract B= Value of Balance scope of Work/ Supply (*) as per rates of old contract being paid to the contractor/ supplier at the time of termination of contract i.e. inclusive of PVC & ORC, if any. H = Overhead Factor to be taken as 5 In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero). *(Balance scope of work/ supply) Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work/ Supply for calculating risk & cost amount. Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities. Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities as per issued drawings would be deemed to be contract quantities. Substitute/ extra items whose rates have already been approved would form part of contract quantities for this purpose. Substitute/ extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions. However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose.

	NOTE: In case portion of work is being withdrawn, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work/supply' for calculating Risk & Cost amount. Note: Non-acceptance will lead to rejection of offer
12	DELIVERY PERIOD: "03 weeks from the date of PO / Clearance (including manufacturing, Inspection and despatch altogether)" However, it is to be noted that the above mentioned period of 03 weeks is applicable for the total requirement. For LD/delivery extension purpose, the delivery period for the quantity for which manufacturing clearance was given will be calculated proportionately from the 03 weeks. Non-acceptance of the same will result in offer being liable for rejection.
13	Validity: 90 days from Technical Bid opening. Non-compliance of the same will result in offer being liable for rejection
14 (a)	Please mention your GSTIN Number and HSN Code GSTIN Number: HSN Code:
14 (b)	Applicable GST percentage:
14 (c)	<u>Implementation of GST</u> For supplies after implementation of New GST Return System i.e. from 01/10/2019, the following conditions will apply and supplier shall fully comply to the below points. <u>Indigenous suppliers:</u> 1. Response to Tenders for Indigenous supplier will be entertained only if the vendor has a valid GST registration No (GSTIN) which should be clearly mentioned in the offer. If the dealer is exempted from GST registration, a declaration with due supporting documents need to be furnished for considering the offer. Dealers under composition scheme should declare that he is a composition dealer supported by the screen shot taken from GST portal. The dealer has to submit necessary documents if there is any change in status under GST. 2. Supplier shall mention their GSTIN in all their invoices (incl. credit Notes, Debit Notes) and invoices shall be in the format as specified/prescribed under GST laws. Invoices shall necessarily contain Invoice number (in case of multiple numbering system is being followed for billing like SAP invoice no, commercial invoice no etc., then the Invoice No. which is linked/uploaded in GSTN network shall be clearly indicated), Billed to party (with GSTIN) & Shipped to party details, item description as per PO, Quantity, Rate, Value, applicable taxes with nomenclature (like IGST, SGST, CGST & UTGST) separately, HSN/ SAC Code, Place of Supply etc. 3. All invoices shall bear the HSN Code for each item separately (Harmonized System of Nomenclature)/ SAC code (Services Accounting Code). 4. Invoices will be processed only upon completion of statutory requirement and further subject to following: a. Vendor declaring such invoice in Form GST ANX-1 b. Receipt of Goods or Services and Tax invoice by BHEL 5. As the continuous uploading of tax invoices in GSTN portal (in GST ANX-1) is available for all (i.e. both Small & Large) tax payers under proposed new GST Return System, all invoices raised on BHEL may be uploaded immediately in GST portal on despatch of material /rendering of services. The supplier shall ensure availability of Invoice in GST portal before submission of invoice to BHEL. Invoices will be admitted by BHEL only if the invoices are available in GSTN portal (in BHEL's GST ANX-2). 6. In case of discrepancy in the data uploaded by the supplier in the GSTN portal or in case of any shortages or rejection in the supply, then BHEL will not be able to avail the tax credit and will notify the supplier of the same. Supplier has to rectify the data discrepancy in the GSTN portal or issue credit note or debit note (details also to be uploaded in GSTN portal) for the shortages or rejections in the supplies or additional claims, within the calendar month informed by BHEL. 7. In cases where invoice details have been uploaded by the vendor but failed to remit the GST amount to GST Department (Form PMT-08 or Form GST RET-01 to be submitted) within stipulated time, then GST paid on the invoices pertaining to the month for which GST return not filed by the vendor will be recovered from the vendor along with the applicable interest (currently 24% p.a) and all subsequent bills of the vendor will not be processed till filing of the GST return by the vendor 8. In case GST credit is denied to BHEL due to non-receipt or delayed receipt of goods and/ or tax invoice or expiry of timeline prescribed in GST law for availing such ITC, or any other

	reasons not attributable to BHEL, GST amount claimed in the invoice shall be disallowed to the vendor. 9. Where any GST liability arising on BHEL under Reverse Charge (RCM), the vendor has to submit the invoices to BHEL well within the timeline prescribed in GST Law, to enable BHEL to discharge the GST liability. If there is a delay in submission of invoice by the vendor resulting in delayed payment of GST by BHEL along with Interest, then such Interest payable or paid shall be recovered from the vendor. 10. Under GST regime, BHEL has to discharge GST liability on LD recovered from suppliers/contracts. Hence applicable GST shall also be recoverable from suppliers/contractors on LD amount. For this Tax Invoice will be issued by BHEL indicating the respective supply invoice number. 11. GST TDS will be deducted as per Section 51 of CGST Act 2017 and in line with Notification 50/2018 – Central Tax dated 13.09.2018. GST TDS certificate which will be generated in GST portal subsequent to vendor accepting the TDS deduction in the GST portal, will be issued to the vendor.
15	GENERAL CONDITION: Kindly submit the 'no deviation format' with clear indication of Data Sheet No./Specification ref, Drawing and Quality plan.
16	TENDER FINALIZATION: The tender will be finalized as a single package on total cost to BHEL and L1 vendor will be arrived based on opening of the EPS price bids taking into account applicable taxes, duties and insurance. RA will not be conducted for this tender. Hence, vendors are requested to give their best prices at the first instant itself. In the event of final L1 prices being not reasonable to BHEL, BHEL may resort to short closing of this tender. In case of more than one L1 bidders, BHEL will get fresh revised reduced price bids from all such L1 bidders & ranking will be decided based on these revised bids. The new rates quoted should be lower than their previous L1 rates. If L1 could not be decided by this process, ranking will be decided by draw of lots in the presence of all such L1 bidders.
17	SUPPLIER REGISTRATION FORM: Vendors who are not registered as permanent vendor in BHEL Trichy shall submit the filled in Supplier Registration Forms (Link https://supplier.bhel.in/ ->New Registration) along with their offer as a parallel activity for registering their firm with permanent category (Code) with BHEL". For help regarding completion and submission of the application for registration, kindly contact Officer/SDC – 0431-2577301 (nalini.s@bhel.in).
18	PRICE IMPACT: All the technical / commercial details given in the enquiry shall be taken care and offer shall be quoted accordingly. No price impact / implication will be accepted within the validity period.
19 (a)	BENEFITS TO MSE VENDOR: MSE suppliers can avail the intended benefits only if they submit along with the offer, attested/notarized copies of either 1. EM II certificate having deemed validity (five years from the date of issue of acknowledgement in EM II) or 2. Valid NSIC certificate or EM II certificate along with CA certificate applicable for the year, certifying quantum of investment in plant and machinery within the permissible limits as per the act for relevant status (MICRO or SMALL) where the deemed validity of EM II is over. Date to be reckoned for determining the deemed validity will be the date of bid opening (Part 1 in case of two part bid). Udyog Aadhaar Memorandum No. & CA Certificate applicable for the year, certifying quantum of investment in plant and machinery within the permissible limits as per the act for relevant status, to be furnished mandatorily. Non submission of such documents will lead to consideration of their bid at par with other bidders. No benefit shall be applicable for this enquiry, in case of any deficiency in the above required documents or in case the documents are not submitted before price bid opening. If the tender is to be submitted through e-procurement portal, then the above required documents are to be uploaded on the portal even if submitted earlier. Documents should be notarized or attested by a Gazetted officer. <u>For Non-Splitable items (Package basis):</u> i. If L1 vendor is an MSE vendor for the package, the same will be ordered on L1 vendor. ii. If a Non MSE vendor is coming as L1 for a package, then L1 prices for the package will be counteroffered on MSE vendor who is quoting price within the price band L1+15% and if they are agreeing, purchase order will be awarded for full/complete supply of the package to MSE.

	iii. If more than one MSE vendors are available in the L1+15% price band then lowest of the MSE vendor will be selected for counteroffering. If lowest MSE vendor is not accepting it will be counteroffered to the next MSE vendor in the price band and so on. iv. Finally if none of the MSE vendor in the price band is not accepting, the respective package will be ordered on L1 non MSE vendor. v. Since, no further splitting within package is envisaged, no share (6.25 % for SC/ST MSE out of 25 % for MSE) for the SC/ST MSE suppliers and (3% out of 25% for MSE) for Women owned MSE will be provided. Payment for MSE indigenous vendors will be as per MSMED Act, 2006.
19 (b)	IF MSE VENDOR MSME CERTIFICATE
19 (c)	MSE- VALIDITY DATE
19 (d)	CA CERTIFICATE
19 (e)	CA - VALIDITY DATE
20	Subsequent to tender opening, the Part-2 bids (Price bid) of the Supplier will be opened subject to Customer acceptance and techno-commercial (Part-1 bid) qualification. Acceptance required for the same.
21	Fraud prevention policy The bidder along with its associate / collaborators / sub-contractors / sub-vendors / consultants / service providers shall strictly adhere to BHEL fraud prevention policy displayed on BHEL website http://www.bhel.com and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice.
22	AVAILING INPUT TAX CREDIT (ITC): As per GST in line with new GST Return System from 1st Oct 2019.
23	SPECIAL POWER TO TERMINATION: If at any time after the award of contract, BHEL shall for any reason whatsoever does not require whole or any part of the contract to be carried out, then Head of MM shall give notice in writing of the fact to the Contractor and terminate the contract. The contractor shall have no claim to any payment of compensation or otherwise howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of the fore-closing of the contract.
24	FORCE MAJEURE CLAUSE: If, at any time during the continuance of this Contract the performance in whole or in part by either party of any obligations under this Contract shall be prevented or delayed by reason of any War, Hostile acts of the public enemy Civil Commotion, Epidemics, or Acts of God (Floods, Storm/Cyclone, Hurricane, Earth Quake etc.) then provided notice of happening of any such event is given by either party to other within 7 days from the date of occurrence therefor neither party shall by reason of such event be entitled to terminate this Contract nor shall either party have any claim for damages against the other in respect of such non-performance and delay in performance under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist. If the performance in whole or part of any obligation under this Contract is prevented or delayed by reason of any such event, claims for extension of time shall be granted for periods considered reasonable by the Manager/MM subject to prompt notification by the contractor.
25	ARBITRATION & CONCILIATION: Except as provided elsewhere in this Contract, in case amicable settlement is not reached between the Parties, in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or, in any manner touching upon the Contract, then, either Party may, by a notice in writing to the other Party refer such dispute or difference to the sole arbitration of an arbitrator appointed by Head of the BHEL Unit/Region/Division issuing the Contract. The Arbitrator shall pass a reasoned award and the award of the Arbitrator shall be final and binding upon the Parties. Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India) or statutory modifications or re-enactments thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceedings under this clause. The seat of arbitration shall be

	(the place from which the contract is issued). The cost of arbitration shall be borne as per the award of the Arbitrator. Subject to the arbitration in terms of Clause above, the Courts at TRICHY shall have exclusive jurisdiction over any matter arising out of or in connection with this Contract. Notwithstanding the existence or any dispute or differences and/or reference for the arbitration, the contractor shall proceed with and continue without hindrance the performance of its obligations under this contract with due diligence and expedition in a professional manner except where the Contract has been terminated by either Party in terms of this Contract. In case of contract with Public Sector Enterprise (PSE) or a Government Department, the following shall be applicable: In the event of any dispute or difference relating to the interpretation and application of the provisions of the Contract, such dispute or difference shall be referred by either Party for arbitration to the sole arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 shall not be applicable to arbitration under this clause. The award of the arbitrator shall be binding upon the Parties to the dispute, provided, however, any Party aggrieved by such award may make further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law and Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary or Additional Secretary when so authorized by the Law Secretary, whose decision shall bind the Parties hereto finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.
26	JURISDICTION: In case of any suit or other legal proceedings arising under or relating to this Contract, the courts at Trichy, Tamil Nadu only shall have the Jurisdiction and is only after exhausting the aforesaid arbitration clause.
27	SUSPENSION OF BUSINESS DEALINGS WITH SUPPLIERS / CONTRACTORS: Penal action can be initiated on the suppliers / Contractors in line with extant 'Guidelines for Suspension of Business Dealings with Suppliers/ Contractors'. The abridged version of extant 'Guidelines for suspension of business dealings with suppliers/ contractors' has been uploaded on http://www.bhel.com on "supplier registration page". The offers of the bidders who are under suspension as also the offers of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL web site www.bhel.com. 1.0 Integrity commitment, performance of the contract and punitive action thereof: 1.1. Commitment by BHEL: BHEL commits to take all measures necessary to prevent corruption in connection with the tender process and execution of the contract. BHEL will during the tender process treat all Bidder(s) in a transparent and fair manner, and with equity. 1.2. Commitment by Bidder/ Supplier/ Contractor: 1.2.1. The bidder/ supplier/ contractor commit to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India. 1.2.2. The bidder/ supplier/ contractor will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to relevant guidelines issued from time to time by Govt. of India/ BHEL. 1.2.3. The bidder/ supplier/ contractor will perform/ execute the contract as per the contract terms & conditions and will not default without any reasonable cause, which causes loss of business/ money/ reputation, to BHEL. If any bidder/ supplier/ contractor during pre-tendering/ tendering/ post tendering/ award/ execution/ post-execution stage indulges in mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the price or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, then, action may be taken against such bidder/ supplier/ contractor as per extant guidelines of the company available on www. bhel.com and/or under applicable legal provisions.

28	SECRECY OF CONFIDENTIAL INFORMATION: The Contractor undertakes and agrees that he/it will not disclose or reveal in part or full the proprietary/confidential information, which terms shall mean and include patents, trademarks, service marks, registered designs, copyright, design rights, know-how, confidential information, trade and business names and any other similar protected information of BHEL received during negotiation or currency of the contract to any third party or governmental authorities without written permission from BHEL. In the event of termination or expiry of the contract, the contractor shall return all proprietary/confidential information to BHEL. This clause shall survive termination or expiry of the contract. All the input details: transmittals and sample drawings supplied for preparation of drawings are confidential information of BHEL for specific purpose only. The contractor shall never pass on / part with the information to anybody and shall maintain the secrecy of the information. As soon as the bills are certified by BHEL, all the relevant drawing files shall be erased from PCs and shall not be made use under any circumstances. BHEL reserves the right to initiate appropriate action including legal proceeds / termination of contract, recovery of damages, penalties etc., if the contractor is found guilty / wrong usage of the documents given by BHEL for any unauthorised activity.
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By signing this Annexure, the vendor consents that the terms & conditions accepted in this Annexure alone, shall be binding between BHEL and the Vendor and no other terms mentioned, elsewhere in the Offer/Quotation will be considered/accepted by BHEL.



PURCHASE SPECIFICATION FOR LRB ROCK WOOL MATTRESS

01. Material shall be Rock wool.
02. Material shall conform to Group-3 and Group-4 of IS:8183 (Latest), Density 100 Kg/cu.m for Group-3 and 150 Kg/cu.m for Group-4.
03. **Wire netting:**
Wire dia. = 0.56 mm (24 SWG) and Aperture 13 mm.
 - a). GI Wire netting on one side up to 400°C.
 - b). GI Wire netting on both sides up to 400°C
 - c). SS Wire netting on one side above 400°C
 - d). SS Wire netting on both sides above 400°C.
04. **Tieing Wire:**
 - a). 0.4 mm GI Wire – for GI wire netting.
 - b). 0.4 mm SS Wire – for SS wire netting.
– Continuous stitching of equal spacing.
05. **Mattress:** Thickness 25,40,50,60,70,75 mm, Thickness tolerance:(-2,+6)mm
06. **Inspection and Testing procedure :**
As mentioned in the Annexure (Drg. No. 4-33-021-00834/09)
07. **Packing:** The material shall be packed in unfolded condition, and sealed in polythene bags of atleast 0.2mm thickness. Then the sealed bags shall be put inside the polythene lined HDPE or HDPP Woven netting bags and sealed by machine stitching.
NOTE: To account for looseness in packing (if any) due to machine stitching, the bags shall be properly stacked and tightly fastened during transportation to avoid any possible damage due to relative movements. Sharp edges of wire netting shall be bent inwards to avoid damage to packing.
08. **Marking:** The following details are to be legibly written on the packing as well as on a sheet of paper which is to be kept inside, between wool and wire netting:
 - a). Supplier's Name,
 - b). Customer Number/Project,
 - c). Purchase Order Number/Date
 - d). Serial No.of Packing,
 - e). Batch No.
 - f). Thickness of Mattresses,
 - g). No.of Mattresses in the Packing,
 - h). Weight of the packing in kg.
- i) **Caution Note:**
"Always store under covered shed and on raised platforms"
09. Material shall be fairly uniform without lump formation. Material should not break or disintegrate easily and fibres should remain intact during transportation & handling.

REV: 04	ALTD: A.R.JOTHI	SS wire added in sl. no.	REV: 08	ALTD: BHASKAR	Thickness tolerance altered.	REV: 09	ALTD: BHASKAR	Sl. No. 01 and 09
10.02.2011	APPD: C.G.S	03 and 04.	24.03.2016	APPD: K SELVAM		24.03.2016	APPD: K SELVAM	description modified.
REV: 03	ALTD: A.R.JOTHI	Group-04 and 150 Kg/cu.m	REV: 07	ALTD: BHASKAR	Sl. No. 07 revised, and	REV: 10	ALTD: BHASKAR	Sl. No. 05 altered.
05.04.2010	APPD: C.G.S	added in sl.no.02.	29.12.2015	APPD: K SELVAM	Sl. No. 09 added.	17.12.2016	APPD: K SELVAM	Packing Note added.
REV: 02	ALTD: A.R.JOTHI	Revision 01 marked on	REV: 06	ALTD: BHASKAR	Thickness tolerance added.			
14.07.2007	APPD: C.G.S	drg.no. 4-33-021-00834.	28.11.2015	APPD: K SELVAM	Sl. No. 01 modified.			
REV: 01	ALTD: A.R.JOTHI	Packing details altered	REV: 05	ALTD: A.R.JOTHI	Sl.nos. 03,04,06 and 07			
25.05.2007	APPD: C.G.S	as per Purchase request.	31.03.2012	APPD: C.G.S	text are altered.			
INSULATION		PREPARED	A.R.JOTHI GURUNATHAN.		21.06.05	DRAWING NO : 4-33-021-00833		REV. 10
		CHECKED	C.GUNASEKARAN		22.06.05			
		APPROVED	C.S.ATHITHYAN		22.06.05			



INSPECTION & TESTING REQUIREMENTS FOR LRB ROCK WOOL MATTRESS (Annexure to 4-33-021-00833/10)

1.0 ROUTINE TEST:

The following tests are to be conducted for every batch.

- Bulk density Kg/Cu.m , Tolerance $\pm 10\%$
- Shot content
- Percentage of moisture
- Chloride content
- Alkalinity
- Sulphur content
- Dimension (length, width, thickness). Length and width tolerance as per IS:8183, Thickness tolerance as per 4-33-021-00833/10.

2.0 TYPE TEST:

The following type tests shall be done once in three months.

- Moisture absorption
- Incombustibility
- Heat resistance at 550°C for Group-3 and 750°C for Group-4.
- Resistance to vibration and jolting
- Compressibility and resilience
- Fibre diameter (7 microns max.)

The above Tests are to be conducted as per IS:3144 (Latest) and acceptance standard shall be IS:8183 unless specified otherwise.

3.0 THERMAL CONDUCTIVITY TEST:

The above test shall be conducted once in twelve months at any one of the following approved laboratories as per IS:3346.

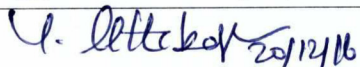
- Dept of Mechanical Engineering , IIT, Chennai.
- Central Building Research Institute, Roorkee.
- PIBCO, New Delhi.
- NIRMA University, Ahmedabad.

A Test Certificate containing all the above results shall be furnished.

REV: 03 11.05.11	ALTD: A.R.JOTHI APPD: C.G.S	Annexure drg.no. revised as 4-33-021-00833/04.	REV: 07 24.03.16	ALTD: BHASKAR APPD: K SELVAM	Annexure drg. No. revised	REV: 08 07.06.16	ALTD: BHASKAR APPD: K SELVAM	Annexure drg. No. revised.
REV: 02 05.04.10	ALTD: A.R.JOTHI APPD: C.G.S	Temp for heat resistance test for group-4 included.	REV: 06 29.12.15	ALTD: BHASKAR APPD: K SELVAM	Annexure drg. No. revised	REV: 09 17.12.16	ALTD: BHASKAR APPD: K SELVAM	Annexure drg. No. revised.
REV: 01 14.07.07	ALTD: A.R.JOTHI APPD: C.G.S	Periodicity of TC test changed from 6 to 12 months.	REV: 05 28.11.15	ALTD: BHASKAR APPD: K SELVAM	Dimension test added. Annexure drg.no. revised			
			REV: 04 31.03.12	ALTD: A.R.JOTHI APPD: C.G.S	Approved laboratories updated for TC test.			
INSULATION		PREPARED	A.R.JOTHI GURUNATHAN.		21.06.05	DRAWING NO :		REV
		CHECKED	C.GUNASEKARAN		22.06.05	4-33-021-00834		09
		APPROVED	C.S.ATHITHYAN		22.06.05			

	BHARAT HEAVY ELECTRICALS LIMITED TIRUCHIRAPPALLI - 620 014, INDIA. QUALITY ASSURANCE DEPARTMENT
STANDARD QUALITY PLAN FOR LRB WOOL MATTRESS as per IS:8183-1993 Group 3 & 4	
SQP:SD:15 Rev No: 01	Page: 1 of 3

Prepared By Quality Assurance	VENKANNA RUPANI	<i>R. Venkanna</i> 20/12/2016
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Reviewed by	Signature
Quality Assurance G. PANNEERSELVAM	 20/12/16
Engineering K. SELVAM	 20/12/16
Materials Management / BOI P. PANDIARAJAN	 20/12/16
Quality Control T. CHITHAMBARARAJAN	 20/12/16

Rev No	Date	Approved by	Signature
01	20/12/2016	AGM / QA & BE	 20/12/16

Record of Revisions

Rev No	Date	Details of Revision	Remarks
00	11/05/2016	Fresh Issue-CQP: 4612 Rev: 00 converted into SQP format along with revisions to Title, Cl 1.2, 1.3, 2.1, 3, 4, 5 and Notes. Routine tests and type tests were re-organized category-wise.	
01	20/12/2016	<i>Note 2 revised to remove type test certificate review by QA.</i> <i>Note 10 modified to indicate latest revisions of BHEL Engineering specifications.</i>	

बी एच ई एल BHEL		MANUFACTURER'S NAME & ADDRESS: BHEL- TIRUCHIRAPPALLI APPROVED SUPPLIERS		STANDARD QUALITY PLAN						QWI NO:SQP:SD:15				
				PRODUCT: LRB WOOL MATTRESS as per IS:8183-1993 Group 3 & 4						REV NO: 01 DATE: 20/12/2016				
				SUB-SYSTEM : Steam Generator and Auxiliaries						PAGE: 2 OF 3				
SL. NO	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
1	2	3	4	5	M	C/N	7	8	9	D*	M	C	N	11
1	2	3	4	5	M	C/N	7	8	9	D*	**	10		11

1.0	RAW MATERIAL:													
1.1	Raw materials (Rock & Binders)	Chemical Properties	B	Lab analysis	One sample/ lot	As per vendor standard.		MTC	√	P	V	V		
1.2	GI Hexagonal wire netting (Upto 400 ^o C)	Wire diameter & Dimension of netting	B	Measurement	IS: 3150 Append A	IS: 3150	BHEL Approved Data Sheet	MTC	√	P	W	V	Audit check at random will be done by Agency “C” at sub-supplier works for all the verification points.	
		Chemical	B	Lab analysis	-do-	IS:280 & IS:7887	IS:7887	MTC	√	P	V	V		
		Tensile test	B	Lab analysis	-do-	IS:280 & IS:1608	IS:280	MTC	√	P	V	V		
		Wrapping test	B	-do-	-do-	IS:280	IS:280	MTC	√	P	V	V		
		Coating test	B	-do-	-do-	IS:280	IS:4826- 30 GSM	MTC	√	P	V	V		
		Bend test	B	-do-	-do-	IS:280	IS:280	MTC	√	P	V	V		
1.3	SS Hexagonal wire netting (Above 400 ^o C)	Gauge(wire diameter)	B	Measurement	IS:3150	IS:6528	BHEL Approved Data Sheet	MTC	√	P	W	V		
		Dimension of netting	B	-do-	IS :6528	P.S. / IS:3150	BHEL Approved Data Sheet	MTC	√	P	W	V		
		Chemistry	B	Lab analysis		IS:6528 Grade X04Cr18 Ni10	IS:6528 Grade X04Cr18 Ni10	MTC	√	P	V	V		
		Reverse Bend Test	B	Lab analysis				MTC	√	P	V	V		
		Wrapping test	B	Lab analysis				MTC	√	P	V	V		
2.0	INPROCESS CONTROLS:													
2.1	Dimensions of Finished Mattress after removal of wire netting	Length & Width : Tolerance as per IS:8183; Thickness: Tolerances as per BHEL Purchase Spec	B	Measurement	IS:8183 Annex C	IS:3144 & IS:8183	BHEL Approved Data Sheet & BHEL Purchase Specification	MTC	√	P	W*	V	*At Random. Refer Note 4.	
3.0	FINAL INSPECTION : (PER BATCH/LOT)													
3.1	Routine Tests on Finished Mattress after removal of wire netting	Bulk Density	B	Lab Test (R)	IS:8183 Annex C	IS:3144	BHEL Approved Data Sheet	MTC	√	P	W*	V	*At Random. Refer Note 4.	
3.2		Shot content	B	Lab Test (R)				MTC	√	P	W	V		
3.3		Moisture content	B	Lab Test (R)				MTC	√	P	W	V		
3.4		Sulphur content	B	Lab Test (R)				MTC	√	P	W	V		
3.5		Chloride content (corrosives)	B	Lab Test (R)				MTC	√	P	W	V		
3.6		Alkalinity	B	Lab Test (R)		IS:8183 Annex B		MTC	√	P	W	V		

LEGEND: * RECORDS IDENTIFIED WITH "TICK" (√) SHALL BE ESSENTIALLY INCLUDED BY THE SUPPLIER IN QA DOCUMENTATION;
**** M:** MANUFACTURER, **C:** BHEL QC/BHEL AIA, **N:** CUSTOMER; **P:** PERFORM. **W:** WITNESS, **V:** VERIFICATION; **CLASS :** A - CRITICAL ; B - MAJOR ; C – MINOR;
MTC- Manufacturer's Test Certificate; IR- Inspection/Test Report; COC: Certificate of Compliance; (R): Routine test; (I)/(I's): Type test.

बी एच ई एल BHEL		MANUFACTURER'S NAME & ADDRESS: BHEL- TIRUCHIRAPPALLI APPROVED SUPPLIERS		STANDARD QUALITY PLAN						QWI NO:SQP:SD:15				
				PRODUCT: LRB WOOL MATTRESS as per IS:8183-1993 Group 3 & 4						REV NO: 01 DATE: 20/12/2016				
				SUB-SYSTEM : Steam Generator and Auxiliaries						PAGE: 3 OF 3				
SL. NO	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
1	2	3	4	5	M	C/N	7	8	9	D*	M	C	N	11
											**	10		
3.7	Type Tests on Finished Mattress after removal of wire netting	Moisture absorption	B	Lab Test (I)	IS:8183 Annex C	IS:3144	IS:8183	MTC	√	P	W	V	Refer Note: 1.	
3.8		Incombustibility	B	Lab Test (I)				MTC	√	P	W	V		
3.9		Heat resistance at 550°C for Gr-3 & 750°C for Gr-4	B	Lab Test (I)				MTC	√	P	W	V		
3.10		Resistance to Vibration	B	Lab Test (I)				MTC	√	P	W	V		
3.11		Resistance to Jolting	B	Lab Test (I)				MTC	√	P	W	V		
3.12		Recovery after compression	B	Lab Test (I)		IS:8183 Annex A		MTC	√	P	W	V		
3.13		Thermal conductivity (k)	A	Lab Test (Ts)		IS:3346		MTC	√	P	V	V	Refer Note:1 &2	
3.14		Fibre Diameter	B	Lab Test (I)	One for each desnity	IS:3144	BHEL Purchase Specification	MTC	√	P	W	V	Refer Note: 1.	
4.0	PACKING, MARKING AND PRESERVATION:													
4.1	Marking, Packing &	Identification & Marking	B	Visual	IS:8183	BHEL Purchase Specification/ BHEL Approved Data Sheet / BHEL PO			MTC		P	W	V	Refer Note: 8.
4.2	Preservation.	Packing & Preservation	B	-do-	-do-									
5.0	CERTIFICATION	Test Certificate	B	The supplier shall furnish the test certificates indicating the Date of manufacture, Test values, batch number, batch quantity, date of testing, specification to which the material is tested for the routine tests conducted and type tests conducted.						√	P	V	V	

BATCH/LOT – Entire production made in identical conditions viz., total production of LRB Wool Mattress for BHEL-Trichy Purchase Order from start up to close of furnace for a particular period.

NOTES:

- Type test marked as “(I)” shall be done once in 3 months in the presence of BHEL/BHEL AIA for BHEL Purchase Orders and “(Ts)” shall be done once in 12 months. The valid type test reports shall be submitted for review at the time of inspection.
- Thermal Conductivity (k value) test shall be carried out on the sealed samples jointly selected by manufacturer and BHEL/BHEL AIA, in any one of the below specified laboratories:
(1) Department of Mechanical Engineering - IIT, Chennai. (2) CBRI, Roorkee. (3) PIBCO, New Delhi. (4) NIRMA University, Ahmedabad. The original test certificate shall be submitted to BHEL Engineering for review and approval. It shall be produced during the inspection of the product at the manufacturer's works.
- All routine tests (R) shall be carried out in the Manufacturer's own laboratory (Shall be approved by BHEL).
- Products shall be inspected by BHEL/BHEL Authorized Inspection Agency/Customer- as indicated in the BHEL purchase order. The internal test records of routine tests shall be submitted for review during inspection. **Samples identified from the finished lots shall be subjected to routine tests and witnessed by BHEL/ BHEL AIA.**
- Manufacturer shall prepare and submit a separate manufacturing quality plan wherever BHEL's customer approval is envisaged (as specified in the BHEL purchase order).
- The mattress shall be handable without any lump formation and disintegration of material (to be checked by visual inspection).
- The relevant IS Nos.& year of issue: IS : 8183-1993 ; IS:3150-1982 ; IS:280-2006; IS:7887-1992 ; IS:1608-2005 ; IS:4826-1979; IS:6528-1995 ; IS:3144-1992 ; IS:3346-1980.
- The mattresses shall be packed in straight lengths (i.e., unfolded condition) and sealed in polythene bags of at least 0.2 mm thickness. Then, the sealed bags shall be put inside Polythene lined HDPE or HDPP woven netting bags and sealed by machine stitching. Mattresses of same thickness shall be packed in one bag.
- All material test certificates of Routine tests and type tests shall be submitted during witness / final inspection to inspection agency as indicated in the PO.
- P.S - Purchase Specification - BHEL Engineering Specification No: 4-33-021-00833 (**latest revision**) & 4-33-021-00834 (**latest revision**).
- Customer verification stages specified above, under column “N”, shall be followed. Customer witness stages shall be as specified/indicated in BHEL PO.

LEGEND: * RECORDS IDENTIFIED WITH “TICK” (√) SHALL BE ESSENTIALLY INCLUDED BY THE SUPPLIER IN QA DOCUMENTATION;

**** M:** MANUFACTURER, **C:** BHEL QC/BHEL AIA, **N:** CUSTOMER; **P:** PERFORM. **W:** WITNESS, **V:** VERIFICATION; **CLASS:** A - CRITICAL ; B - MAJOR ; C - MINOR;

MTC- Manufacturer's Test Certificate; IR- Inspection/Test Report; COC: Certificate of Compliance; (R): Routine test; (I)/(Ts): Type test.



429-024

PURCHASE / MM / FB SUB DELIVERY – ENQUIRY - DEVIATION

Page

of

SCHEDULE OF DEVIATION TO
SUB – DELIVERY ENQUIRY No.

DATE

DESCRIPTION			
SPECIFICATION		DRG NO.	
QUALITY PLAN			
DOCUMENT REFERENCE	BHEL ENQ. CALLED FOR	FIRMS ALTERNATE OFFER	

CERTIFIED THAT OTHER THAN THE ABOVE DEVIATIONS, WE ARE ACCEPTING ALL
OTHER SPECIFICATIONS AND REQUIREMENTS IN FULL TO YOUR ENQUIRY

STATION:

DATE:

SIGNATURE OF FIRM'S REPRESENTATIVE

FIRM SEAL

Note:

1. Deviations should be taken only in the extreme case
2. If necessary, use additional sheets with page control number

ANNEXURE – II

(TO BE SUBMITTED ON CHARTERED ACCOUNTANT LETTER HEAD)

This is to Certify that M/s
..... (herein after referred to as 'company') having its registered office at
..... is registered under MSMED Act 2006, Entrepreneur Memorandum No.
(Part – II) OR (UAN)..... Dtd:, Category: (Micro
/ Small). (Copy enclosed).

Further Verified from the Books of Accounts that the investment of the company as per the latest audited financial
year as per MSMED Act 2006 is as follows:

1. For Manufacturing Enterprises: Investment in plant and machinery (i.e. original cost excluding land and
building and the items specified by the Ministry of Small Scale Industries vide its notification No. S.O.1722
(E) dated October 5, 2006:

₹ Lakhs

2. For Service Enterprises: Investment in equipment (original cost excluding land and building and furniture,
fittings and other items not directly related to the service rendered or as may be notified under MSMED
Act, 2006:

₹ Lakhs

(Strike off whichever is not applicable)

The above investment of Lakhs is within permissible limit of Lakhs
for..... Micro / Small (Strike off whichever is not applicable) Category under MSMED Act 2006.

Or

The company has been graduated from its original category (Micro/Small) (Strike off whichever is not applicable)
and the date of graduation of such enterprise from its original category is (dd/mm/yyyy) which is within
the period of 3 years from the date of graduation of such enterprise from its original category as notified vide S.O.
No. 3322 (E) dated 01.11.2013 published in the gazette notification dated 04.11.2013 by Ministry of MSME.

Date:

(Signature)

Name –

Membership Number –

Seal of Chartered Accountant