TENDER DOCUMENT

TENDER NO.: BHI/PI(S)/665/1074

FOR

Tender for “Engineering assistance and preparation of drawings & documents” for the Project of “Augmentation of Raw Material Receipt and Handling Facilities for New OHP, Part-B (Package No.-061), for Bhilai Steel Plant at Chhattisgarh”.

VOLUME – II

ENGINEERING PROJECTS (INDIA) LIMITED
(A GOVT. OF INDIA ENTERPRISE)
B-32, Phase - II,
Surya Vihar, Bhilai (Chhattisgarh) – 490020
2.0 SCOPE OF WORK AND TERMS & CONDITIONS:

2.1 SCOPE OF WORK:

The Consultant shall faithfully, expeditiously, economically and honestly perform the following service:

Scope will include preparation and approval for “GOOD FOR CONSTRUCTION” of the following drawing and documents.

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Scope of Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>GA and Detail drawings of Technological Structure i.e Stringer, Short support, Deck plate, Tail Frame, Bend Frame, , Head Frame, Drive Base Frame, VGTU/ Screw Take up Frame etc. of conveyors J9-C1, J9H-C1, J9B-RSC1, J10A-C1, J11-C3, J14-C2, J17A-C1, J17B-C1, J20-C3 &amp; J44-C5 EXTN(Tail pulley extention).</td>
</tr>
</tbody>
</table>

2.1.1 Approval of Drawings and documents from MECON is in bidder’s scope.

2.1.2 Carrying out any modifications/deletions/additions/alteration in design/drawings/documents as required by client & Client’s consultant and EPI for proper execution of works at site till completion and handing over of the project to the client.

2.1.3 The area to be included for design/drawings activities shall be as per enclosed specification and system description.

2.1.4 EPI shall be providing equipment GA & conveyor GA Drawings.

2.2 MODE OF PAYMENT:

On completion of work – 80% of the amount mentioned above shall be released against on the 1st submission and 20% of the balance amount shall be released after getting approval from Client, Client’s Consultant and EPI. EPI shall release running payments on pro-rata basis for various stages depending upon extent of their completion.

2.3 TERMS AND CONDITIONS:

2.3.1 The Agency shall furnish performance guarantee on the proforma of EPI from a scheduled / Nationalised bank to the extent of 5% of the work order value within 7 days of issue of LOI. This bank guarantee shall remain valid till execution of work and handing over all works of the project to client by EPI. In case Agency does not provide performance bank guarantee, an amount of 5% of the work order value shall be deducted from initial payments for various stages @ of 50% of due payment till total deduction on this account reaches 5% of total work order value.

2.3.2 5% of the fees payable to Agency shall be retained from the Running bills as ‘Retention Money’ in addition to the performance guarantee and the performance
guarantee shall be released after completion of the project and retention money after the defect liability period to the Agency.

2.3.3 The Agency undertakes to design, redesign, modify and make changes in the design, drawings, details, vetting of shop drawings etc., any number of times, till they are finally approved by Client, Client’s Consultant & EPI and as required for completion, trial run, defect liability period and handing over of the project to client, within the work order value and nothing extra shall be payable to Agency in this regard.

2.3.4 **PAYMENT TOWARDS VISITS:**

a) All expenses for 6 (Six) visits to Bhilai Steel Plant, Bhilai/MECON, Ranchi performed by the Agency in connection with planning, designing, detailing, obtaining approval from client/client’s consultant till the stage of approval of “Good for Construction drawings” are included in the scope of Agency and nothing extra beyond the agreed fees is payable to them.

Any visit beyond 6 visits as above if required by EPI (for which necessary permission shall be given in writing) during the execution of the project, the agency shall be reimbursed II AC to and fro rail fare and EPI will arrange for boarding & lodging at Bhilai.

However, agency has to include cost of all the visit required for client’s consultant office at Ranchi till completion of job. No additional amount shall be paid towards visit to client’s consultant office at Ranchi.

b) All visits of Agency shall be with prior written approval of EPI.

c) If at anytime after award / start of work, the client decides to abandon or reduce the scope of work for any reason whatsoever and hence not requires the whole or any part of the works to be carried out, EPI shall give notice in writing to this effect to the Agency and the agency shall have no claim for any payment of compensation, or otherwise whatsoever, on account of any profit or advance which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the work.

2.3.5 The Agency shall supply free of charge to EPI, the following documents:

a) Soft copy (editable format) of drawings & design calculations to be submitted to client / client’s consultant.

b) Adequate number of additional design, drawings & other documents needed for approval and proper execution of works.

2.3.6 **COMPLETION PERIOD**

The total job is to be completed within 2 (Two) month period from the date of issue of LOI or 30 days from the date of issue of approved GA drawings, whichever is later.

2.3.7 The agency will be required to give a “Time Schedule” in consultation with EPI for timely completion of consultancy works within One week of issuance of LOI. The agency shall complete the said works within this agreed time schedule. No extension of time for completing the same shall be made owing to any variations made in the
works by the orders of the client, unless the client in consequences of such variations extends the time allowed to EPI for the completion of the works, in which case EPI may extend the time for completion for a period not greater than the time allowed to EPI for the completion of the whole works.

2.3.8 All design and drawing shall be the property of EPI and the name & LOGO of EPI shall be predominantly displayed on all the drawings and documents as "Prime Contractor". The proprietary rights of design shall remain with EPI.

2.3.9 The agency shall be fully responsible for evolving safe, economic, technically sound and correct design and shall ensure that the planning and designing of the work is carried out based on Client & Client’s consultant specification, latest IS codes of practices, international codes, EPI’s works manual, legislation, other relevant bye-laws and good engineering practices. The Agency shall guarantee the stability and performance of all the systems.

2.3.10 The agency will give undertaking that all drawings, design, specifications, plans and other documents will be prepared and furnished to suit the particular local conditions of the site in the most economical manner. The agency will work out economic design and adopt specification so as to ensure that the estimated cost is not exceeded on completion of work. At any stage during the progress of execution of the work, if any defect is noticed in the drawings, designs, specifications, plans, estimates or other documents, the agency shall provide free of cost to EPI fresh designs / drawings / specifications / estimates and other documents within a period of the seven days from the date of notice issued by EPI in this regard for onward submission to BSP / MECON. The agency shall also indemnify EPI for losses due to such defective drawings / designs / specifications / estimates / other documents supplied by the agency subject to a maximum of the consultancy fees.

2.3.11 While providing engineering services, the agency shall ensure that there is no infringement of any patent or design rights and he shall be fully responsible for consequence / any actions due to any such infringement. Agency shall keep EPI indemnified all the times and shall bear the losses suffered by EPI in this regard.

2.3.12 The statutory deduction of income tax, or other taxes / dues shall be made from the payment released to agency from time to time and same are deemed to be included in the agency’s fees and nothing extra shall be payable to agency in this regard. However, the service tax and CESS thereon only as applicable on consultancy fees shall be reimbursed to Agency over the contract value on submission of proof of depositing the same with Statutory Authorities.

2.3.13 The checking of design and drawings of the agency by Client / Client’s Consultant / EPI as above shall not absolve the responsibility of the agency.

2.3.14 The contract may be terminated at any time by EPI upon one month’s notice in writing being given to agency, if the Agency’s work is not found to be satisfactory according to the terms of the contract. In case the contract is terminated on account of Agency’s work not being satisfactory, EPI will get the work done at the risk and cost of the agency.
2.3.15 **PENALTY**

In case the agency fails to complete the work within the contract period or extended period mentioned above owing to reasons attributable to agency, liquidated damages @ 1% per week of the total order value subject to a maximum of 10% of the total order value payable shall be levied on the agency. EPI shall be entitled to deduct such damages from the dues that may be payable to the agency.

2.3.16 **FORCE MAJEURE CLAUSE**

EPI will not be responsible for any delay / stoppage of work due to force majeure conditions like natural calamities, civil disturbances, strikes, war etc. and losses suffered, if any, by the agency on this account. EPI shall not be liable in any way to bear such losses and no compensation of any kind whatsoever will be payable by EPI to the agency.

2.3.17 **ARBITRATION**

In the event of any question, dispute and or difference whatsoever arising under the contract or in connection there-with including any question relating to existence, meaning and interpretation of this contract or any alleged breach thereof, the same shall be settled as far as possible by mutual discussions and consultation between agency and EPI with reference to and in context of the agreement failing which the same will be referred to the Sole Arbitration of any arbitrator appointed by the Chairman-cum-Managing Director of Engineering Projects (India) Ltd., whose decision shall be final and binding on both the parties. Subject to as aforesaid, the Arbitration and Conciliation Act, 1996 and rules there under and any statutory modifications thereof for the time being in force shall apply to the arbitrator proceedings under these paras. It is clearly agreed that in every case where any appointee arbitrator refuses or vacates his office or neglect or refuses to act or become incapable of acting or dies, the vacancy shall be supplied by the Chairman-cum-Managing Director of EPI as aforesaid.

The contract will be deemed to have been executed in Delhi and Courts in Delhi alone will have the jurisdiction to entertain any matter arising out of this agreement.

2.3.18 **JURISDICTION**

The Courts in Delhi/New Delhi alone will have jurisdiction to deal with matters arising from the contract, to the exclusion of all other Courts.
3.0 BRIEF SYSTEM DESCRIPTION

The turnkey package of this Contract Document comprises of the following sub-systems:

1) Modifications/ up-gradations of existing equipment, including:
   - An additional series of conveyor from OHP I to JH-20 and JH-42(Ext’g) parallel to existing route.
   - Up gradation of capacity of existing shuttle conveyors J9BRSC1.

3.1 New Ore Handling Plant (OHP-II)

The raw material to be handled by the proposed system is mainly, Iron Ore Lump, Iron Ore Fines, Lime Stone (BF grade), Lime Stone (SMS grade), Dolomite (BF grade), Dolomite (SMS grade), Quartzite, Manganese ore. These raw materials are mainly required for Blast Furnace, Sinter Plant, Lime-Dolomite Plant, SMS. All the raw materials will be received at the plant boundary by rail. The type of Wagon will be BOXN, BOXNHA, BOY, BOBRN, BOST, BOBS, BOXNEL, BOYL, BOXN HS etc which will transport the raw materials depending upon the location of loading and type of raw materials.

(i) Design Considerations

The Ore Handling Plant (OHP-II) has been planned based on the following assumption:

A. Size of Raw Material

1. Lump Iron Ore : -40 mm
2. Iron ore fines : - 8 mm
3. Lime Stone (BF/SP grade) : -60 mm
4. Dolomite (BF/SP grade) : -60 mm
5. Quartzite : -50 mm
6. Lime Stone (SMS grade) : -25 mm
7. Dolomite (SMS grade) : -25 mm
8. Pellets : -18 mm
9. Manganese Ore : -25 mm
10. Coke Breeze : -25 mm

B. No of Days of Working per year: 330 days

3.2 OTHER ADDITIONS/ MODIFICATIONS AND UPGRADATION IN EXISTING OHP

(REF. DRG. NO. MEC/S/9101/11/0/00/00/061.B01/ R2)
(i) **An Additional series of conveyor from OHP to J-20 and JH-42(Exst'g)**

Another proposed conveyor No J9-C1 parallel to J9-C3/J9-C4, besides conveyors R-102, shall start from Jn. House JH-9B and shall discharge the material in a proposed conveyor J9H-C1 in existing JH-9, which in turn feeds to conveyor J10-C2 in new Junction house JH-9H. Conv J10-C2 can feed proposed conveyor J11-C3, J11-RC2, J14-C2/J12-C2 (Exst’g), J15-C2. Conv J15-C2 shall feed new reversible conv. J15-RC1 in junction house JH-15, which in turn can feed either existing SMS-II feeding conv. J15A-C1 or new conv. J15B-C1. Conv. J15B-C1 or another new conv. J15B-C2 which shall receive sinter from existing conv. SS-10 shall feed new conveyor J16-C3 in new junction house JH-15B which in turn shall discharge onto new conv. J16-C3A in new junction house JH-16A. Conv. J16-C3A shall discharge onto new conv. J17-C3 in JH-16A which shall convey material to conveyor J17A-C1 in JH-17(exst’g). Conveyor J17A C1 (Capacity 1500tph) shall discharge to either of the two conveyors J20C3 or J17B-C1 through a adjustable flap gate in junction house J17A. further J17B-C1 shall discharge the material onto J42-C2 in JH-17B. The capacity of the outgoing conveyors J20C3 and J17B-C1/J42C2 shall be 500tph and 1000tph respectively. Conveyor J20C3 shall be provided with one no. belt weigh scale and have provision of discharging onto existing sinter carrying conveyor J27-C5 (Exst’g) in junction house JH-20 (Exst’g). Conveyor J42-C2 shall have provision of discharging onto existing conveyor J44-C5 in junction house J42 (Exst’g). Necessary modification/strengthening shall be carried out in junction house J42 to take care of additional loads by new conveyor. Suitable electrical interlock shall be provided between the conveyors J27-C5 & J20-C3 in junction house JH-20 to trip all the incoming conveyors in case feed rate exceeds capacity (500tph) of the corresponding downstream conveyor J27-C5. Similar interlock shall also be provided between J44-C5 & J44-C2 in junction house JH-42 to avoid any spillage/chute blockage.

These additional conveyors with gate will facilitate a new additional route for BF # 7.


(ii) **Up gradation of Reclaiming conveyors**

The capacity up-gradation and utilization of reclaim conveyors are of utmost importance to ensure smooth operation in the OHP.

The list of conveyors in the reclaiming circuit that shall be upgraded to 1500 tph are given in table 03.01.

<table>
<thead>
<tr>
<th>SL No</th>
<th>CONVEYOR NO</th>
<th>EXISTING</th>
<th>PROPOSED</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>BELT WIDTH mm</td>
<td>CAP</td>
</tr>
<tr>
<td>1</td>
<td>J9B-RSC1</td>
<td>1400</td>
<td>500 m³/hr</td>
</tr>
</tbody>
</table>

The capacity of all Belt conveyors shall be 1500tph for all raw materials viz. iron ore, limestone, dolomite with 1400mm belt width and belt speed shall be 2.0 m/s with a troughing angle of 35°. (Bulk density of raw material shall be considered as 2.2 t/m³)
for power calculation/load data of structures and 1.6 t/m³ for volumetric capacity calculation of conveyor).