

Corrigendum - 1 dated 02/05/2024 to CPC Tender No. BHEL/CPC/TLR & SGL/STONE SAND/25/003

Corrigendum - 1 dated 02/05/2024 to CPC Tender No. BHEL/CPC/TLR & SGL/STONE SAND/25/003 for the work of “Manufacturing of Crushed Stone Sand from Excavated Rock Boulders inside the plant premises including sorting and feeding of boulders, storage of sand at crusher site, disposal of silt/clay/rejects to the designated site and loading of Sand to the prospective consumer's vehicle from crusher site at 2x660 MW Talcher Thermal Power Station, Odisha and 2x800 MW Singrauli STPP- Stage-III, Sonbhadra, Uttar Pradesh”.

A) TECHNICAL CONDITIONS OF CONTRACT (TCC): Clause No. 2.1.1, 2.1.4, 2.1.5, 2.1.9, 2.2.1, 2.2.2, 2.2.4, 2.2.5, 2.4.4, 2.1.3, 2.3.3, 2.4.1, 2.4.2, 2.4.3, 4.1.1, 7.3 of TCC are revised as below;

Sl. No.	Document	Clause No	Existing Clause	Revised Clause
1	TCC	2.1.1,2.1.4, 2.1.5, 2.1.9, 2.2.1, 2.2.2, 2.2.4, 2.2.5, 2.4.4	Refer terms - "Crushed Stone Sand", "Sand"	Modified as "Crushed Stone/Sand"
2	TCC	2.1.3	The expected approximate quantity of production of Sand is 1,85,000T(to be executed in 7 months) for Talcher & 8,00,000T(to be executed in 24 months) for Singrauli project.	The expected approximate quantity of production of Crushed Stone/Sand is 1,85,000T (to be executed in 8 months) for Talcher & 8,00,000T (to be executed in 24 months) for Singrauli project.
3	TCC	2.3.3	The Crushing Unit will be minimum 200TPH - III Stage Mobile Crusher having suitable screening provisions. The selection of machinery should be based on the most energy efficient operation i.e. KWH/MT , calculation of running load and line diagram of technology to be submitted to BHEL.	The Crushing Unit will be minimum 200TPH - III Stage Mobile Crusher having suitable screening provisions. The selection of machinery should be based on the most energy efficient operation i.e. KWH/MT, III Stage Crusher Plant with washing unit i.e. total 4 stages as below: - a) Primary - JAW. b) Secondary – Cone c) Tertiary – VSI d) Fourth stage - Washing unit/wet classifier(as per peak requirement)
4	TCC	2.4.1	Payment shall be made in line with actual dispatch quantity of Sand to ultimate consumer	Payment shall be made in line with actual dispatch quantity of Crushed Stone/Sand to ultimate consumer. Crushed Stone/Sand loaded for Final dispatch into Consumer vehicles will be measured through Weighbridge in tonnes. BHEL shall allocate weighbridge for measurement within the plant premises. You shall deploy representative for joint verification of dispatched material. Wherever BHEL is not able to provide Weighbridge, bidder has to make their own arrangements at site for Weighment.

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5	TCC	2.4.2	Sand loaded for Final dispatch into Consumer vehicles will be measured through Weighbridge in tonnes. BHEL shall allocate weighbridge for measurement within the plant premises. You shall deploy representative for joint verification of dispatched material.	<p><u>Moisture Correction for Crushed Stone Sand: -</u></p> <p>a) The allowable moisture content of the crushed stone sand shall be 5%. No corrections shall be made in case field moisture content is less than/equal to allowable moisture content.</p> <p>b) However, if the field moisture content is greater than the allowable moisture content limit (5%), necessary corrections in weight shall be done for deriving the actual payable weight for the supplied sand. In such case, the reduction in measurements of the supplied sand shall be in accordance with the formula as indicated below: -</p> <p>$W_{\text{payable}} = W_{\text{field}} / (1 + (W_0 - W_a))$</p> <p>Where, W_{payable} = Dry Weight of Manufactured/ Crushed Stone Sand W_{field} = Field Weight of Manufactured/ Crushed Stone Sand W_0 = Total Moisture Content as per oven test W_a = Allowable Moisture Content (5%)</p> <p>The moisture content of the sand (which is being used for delivery) shall be calculated for correction to arrive at the dry weight. The weight of sand supplied will be calculated after deducting the moisture content i.e. weight of the material will be calculated from the dry density of the material.</p> <p>For Example: -</p> <p>Delivered Field Weight of Material = 1000 tonnes(say) Total Moisture Content = 8%(say) Allowable Moisture Content = 5% Payable Weight of Material = $1000 / (1+(0.08-0.05))$ tonnes = $1000 / (1.03)$ tonnes = 970.874 tonnes</p> <p>c) The moisture content of the sand to be supplied shall be evaluated on daily basis and shall be jointly recorded. Measurements for payment shall be accordingly calculated and finalised on daily basis in line with the daily moisture content.</p> <p>d) Necessary lab arrangements like Oven of 200 degree, digital weigh machine, seive analysis, etc for moisture test, physical properties of sand/aggregates shall be in your scope.</p>

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6	TCC	2.4.3	<p>In case, due to any reason BHEL/consumer-working agencies is unable to issue/pickup crushed sand for more than 30 days and lying in the stockyard, the following will be the modus operandi for payment:</p> <p>a) 90% of quantity of Sand lying in the stockyard for more than 30 days will be considered for payment.</p> <p>b) Balance 10% quantity will be considered for payment only after actual dispatch of stock of Sand to ultimate consumer or final bill whichever is earlier.</p> <p>The density factor of the crushed Sand to be considered shall be jointly derived at site for the stock estimate.</p>	<p>In case, due to any reason BHEL/consumer-working agencies is unable to issue/pickup Crushed Stone/Sand for more than 30 days and lying in the stockyard, the following will be the modus operandi for payment:</p> <p>a) 80% of quantity of Crushed Stone/Sand lying in the stockyard for more than 30 days will be considered for payment.</p> <p>b) Balance 20% quantity will be considered for payment only after actual dispatch of stock of Sand to ultimate consumer or final bill whichever is earlier.</p> <p>The density factor of the Crushed Stone/Sand to be considered shall be jointly derived at site for the stock estimate.</p>
7	TCC	4.1.1	<p>Crushing Unit minimum 200TPH - III Stage Mobile Crusher with required arrangements for washing, sprinkling of water, screening, etc all complete. (Crusher shall not be older than 3 years from the date of LOA)</p>	<p>Crushing Unit minimum 200TPH - III Stage Mobile Crusher with VSI and required arrangements for washing, sprinkling of water, screening, etc all complete. (Crusher shall not be older than 3 years from the date of LOA)</p>

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Sl. No.	Document	Clause No	Existing Clause	Revised Clause
8	TCC	7.3	<p><u>SECURED RECOVERABLE ADVANCES:</u> Interest Free Secured Mobilization Advance as per GCC Clause No. 2.13.1 will be payable under exceptional circumstances on certification of BHEL Construction Manager at Site. Interest Free Mobilization Advance shall be disbursed in specifically mentioned stages of major resource mobilization as specified hereunder: 1.For Mobilization and Installation of Batching Plants along with required T&P i.e. Transit Mixers, Silos, Construction Materials (Sand, Aggregate, Admixture etc.)- 2.0% 2.For Mobilization of required T&Ps and resources at site to start the work- 1.5% 3.For Installation and Erection of Site Infrastructure by contractor i.e. site office stores etc.- 1.5%</p> <p><u>Notes:</u> 1.BHEL Site-CM shall be the deciding authority for assessing the admissibility of advance payment to contractor. 2. In case contractor do not fulfil the agreed conditions of payment of 1st mobilization advance, BHEL Construction Manager will have the authority to not allow the 2nd mobilization advance to contractor.</p>	<p><u>SECURED RECOVERABLE ADVANCES:</u> Interest Free Secured Mobilization Advance as per GCC Clause No. 2.13.1 will be payable under exceptional circumstances on certification of BHEL Construction Manager at Site. Interest Free Mobilization Advance shall be disbursed in specifically mentioned stages of major resource mobilization as specified hereunder: - 1. For Mobilization and Installation of Crusher Plant- 2.0% 2. For Mobilization of required T&Ps and resources at site to start the work- 1.5% 3. For Installation and Erection of Site Infrastructure by contractor i.e. site office, lab etc.- 1.5%</p> <p>Notes: a. BHEL Site-CM shall be the deciding authority for assessing the admissibility of advance payment to contractor. b. In case contractor do not fulfil the agreed conditions of payment of 1st mobilization advance, BHEL Construction Manager will have the authority to not allow the 2nd mobilization advance to contractor.</p>

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B) Some of the Bidders had asked queries in the published tender specification. The clarifications issued by BHEL are as below;

Sl. No.	Reference clause of tender document	Existing Provision	Bidder's Query	BHEL's Clarification
1	Security Deposit (GCC Clause 1.10)	5% of Contract Value and shall be furnished before Commencement of Work. SD to be released after completion of Guarantee Period.	Since the work is capital intensive and around 30-40 % of contract value is bidder's own CAPEX , bidder request the reduction of the same to 2.5% on basic value of contract	Tender Condition Prevails
2	Retention amount (GCC Clause 2.22)	5% of contract value and shall be furnished before the first RA Bill becomes due for payment. On successful bidder's request, the Retention Amount can also be recovered at the rate of 10% of the gross amount, progressively, from each of the running bills of the contractor till the total amount of the required retention amount is collected. RA to be released along with Final Bill.	Since the work is capital intensive and around 30-40 % of contract value is bidder's own CAPEX, bidder request the reduction of the same to 2.5% on basic value of contract. If Retention BG is not submitted the same to be recovered in percentage of retention to be deposited from each RA bill.	Tender Condition Prevails
3	Security deposit GCC 1.10.6)	The validity of Bank Guarantees towards Security Deposit shall be initially up to the completion period as stipulated in the Letter of Intent/ Award + Guarantee Period + 3 months, and the same shall be kept valid by proper renewal by the contractor till the acceptance of Final Bills of the Contractor by BHEL.	Since the nature of the work to be done by bidder is not of the nature that would require the goods to deteriorate or works to be in a state to change after QA/QC checks hence we request to kindly consider guarantee period = contract period + 1 month and Security deposit period be equal to guarantee period.	Tender Condition Prevails

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Sl. No.	Reference clause of tender document	Existing Provision	Bidder's Query	BHEL's Clarification
4	(TCC Chapter - II clause 2.5 Read along with GCC clause Security deposit 1.10 & retention amount 2.22	<p>Bidder shall note that separate orders shall be placed in line with Price Schedule for:</p> <p>A) 2x660 MW Talcher Thermal Power Station, Odisha B) 2x800 MW Singrauli STPP- Stage-III, Sonbhadra, U.P.</p> <p>5% of Contract Value and shall be furnished before Commencement of Work. SD to be released after completion of Guarantee Period.</p> <p>5% of contract value and shall be furnished before the first RA Bill becomes due for payment. On successful bidder's request, the Retention Amount can also be recovered at the rate of 10% of the gross amount, progressively, from each of the running bills of the contractor till the total amount of the required retention amount is collected. RA to be released along with Final Bill.</p>	<p>We request BHEL to consider our request for submission of Security deposit & release of retention for individual site individuality. e.g. for commencement of work initially Talcher is envisioned so we would submit the SD on the basic of talcher contract initially and when we start Singrauli contract then on Singrauli and after installation of plant at Singrauli at that time talcher SD & Retention being released.</p>	<p>The security Deposit should be furnished before start of the work by the contractor. Separate Security deposit to be submitted by agency for Talcher & Singrauli respectively before Start of Work at respective sites.</p> <p>Refer Clause No 2.5.2 of TCC and Clause No 1.10 & 2.24 of GCC.</p>
5	Price variation clause (GCC clause 2.17)	Not applicable	<p>As the works also requires boulder to be broken in required size post stacking by BHEL , transportation and loading of finished goods and DG being used for backup power , our rates are highly dependent on diesel prices , and given the volatile nature of prices of the same we request to kindly consider the same for escalation as it will form a major component of our cost .</p>	Tender Condition Prevails

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Sl. No.	Reference clause of tender document	Existing Provision	Bidder's Query	BHEL's Clarification
6	Construction power (TCC Chapter - III Clause 3.3)	Construction power (three phase, 415 V/ 440 V) will be provided on chargeable basis at one point near the site at a distance of approx. 500M.	Please specify the rate at which power will be charged as power will form a major component of cost.	Prevailing rates at respective projects shall be applicable based on rates of respective states.
7	TCC Clause 2.3.1	The bidder shall clearly indicate the proposed technology for generation of Sand from rock boulders, required civil construction and illustrate with sketches and diagrams wherever required. The plant shall consist of suitable and sufficient capacity of process equipments and allied equipment with environmentally and eco-friendly technology (refer clause 6.B) to produce required quantity of Manufactured Sand. (Sand quality as per IS: 383 & IS: 2386 Standards)	As Per IS 383 clause 5.2.1 table 2 Limit of deleterious content, as per provision of the contract the limitation of technology used can only be limited to the physical nature of final product i.e. Shape, size, grading, silt content, rest of the limits are based on the nature of the rock sample , we request you to kindly provide test report of rock to ascertain the amount of silt that would be generated in rock processing and net sludge generation in process.	Bidders may arrange site visit to ascertain the nature of rock. Bidders should meet the criteria of Crushed sand as per IS 383 Table No 2 Clause No 5.2.1.
8	TCC Clause 2.3.3	The Crushing Unit will be minimum 200TPH - III Stage Mobile Crusher having suitable screening provisions. The selection of machinery should be based on the most energy efficient operation i.e. KWH/MT , calculation of running load and line diagram of technology to be submitted to BHEL.	Since the electricity is chargeable there is no point in submission of KWH/MT, running loads etc. BHEL has envisioned a three stage plant with washing unit i.e. total 4 stages as multiple option of technology is available for rock processing we request to please confirm which technology is to be used. a. Primary - JAW. b. Secondary - Cone OR JAW. c. Tertiary Cone or VSI d. Forth stage - Washing unit (please specify capacity & type) i.e. 100 TPH with single wash or double wash with thicner. As per our experience 200 TPH rated at 45 MM is not sufficient and a minimum of 250 TPH rated at 45MM would be required to generate	Requirement of Crushing Unit minimum 200TPH - III Stage Mobile Crusher with required arrangements for washing, sprinkling of water, screening, etc all complete. (Crusher shall not be older than 3 years from the date of LOA). III Stage Crusher Plant with washing unit i.e. total 4 stages a) Primary - JAW. b) Secondary – Cone c) Tertiary – VSI d) Fourth stage - Washing unit(as per peak requirement) Bidder may opt for higher rating Crushing plant to achieve

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			a nominal output of 100 TPH for dust which would ultimately generate 70 TPH of washed sand that would generate at peak 1500 TPD.	desired requirements in line with TCC Clause No 2.3.4.
9	TCC Clause 2.3.9 NOC From PUC	Environment Protection Act, 1986 and rules and regulations made there under from time to time are to be strictly followed for loading, transportation, Processing etc. by mechanical means. Air pollution control measures are to be adopted as per SPCB and CPCB norms. The contractors shall follow the relevant provisions of clearance, as communicated by Ministry of Environment and Forest (MOEF), as applicable for the mine / project and also instructions of Engineer-in-Charge.	Please clarify who will be responsible for obtaining the required NOC from PUC department for operating of crusher plant, as we already know as the power plant is in Singrauli Border which is a critically polluted area and a long time will be required with significant cost impact for obtaining the same. Also please clarify if slippage in schedule is there due to delay in NOC from government, please suggest remedial measures then.	Refer Clause No 2.1.7 of TCC. Bidder has to obtain NOC from PUC. Bidders shall make all efforts for obtaining NOC from PUC. Slippage in schedule due to delay in NOC from government(for reasons not attributable to agency) shall be dealt with separately during execution stage.
10	Compensation for shortfall in quantity		Please confirm as rapid crushing is required in Talcher & Singrauli is there sufficient amount of boulder available at both sides, if so what is the average mean size of boulder available. If for any reason whatsoever there is shortfall in demand and sufficient material is not lifted up from the plant, contract is silent on any remedial measured, so request to please elaborate on the same.	<p>a) Adequate quantity of boulder is available at site. Average size is as per site stack which can be assessed by the bidder after visiting Talcher site.</p> <p>b) If in case production in done and sand is not lifted from the crusher site by BHEL, necessary measurements for payments shall be made in line with revised TCC Clause no 2.4 in line with corrigendum.</p> <p>c) BHEL may permit for demobilisation of the crusher with one month notice period if rock material is not available in sufficient quantity.</p>

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Sl. No.	Reference clause of tender document	Existing Provision	Bidder's Query	BHEL's Clarification
11	Payment Terms		Please clarify the billing cycle and credit days after submission of bill required.	In line with Chapter-X of SCC.
12	TCC Clause 2.4.2		Please specify the distance of Weighbridge from the site, Bidder has requested to kindly keep the same in his scope as your Weighbridge maybe busy and or requested a dedicated Weighbridge to be installed by BHEL.	Weighbridge is available within the plant premises. BHEL shall provide the same free of cost. Wherever BHEL is not able to provide Weighbridge, bidder has to make their own arrangements at site for weighment.
13	TCC VOL III Price Schedule Item A1/A2/A3 & B1/B2/B3		Item A1 & B1 -Please specify the trigger milestone in item A1 & B1	For timelines, Refer Clause 6 of TCC.
14	TCC VOL III Price Schedule Item A1/A2/A3 & B1/B2/B3		Item A2 & B2 - There will be two products that would be generated in the process of manufacturing M sand 1st being the M sand itself as per our specification and second being sludge / Jelly/ Silt i.e. waste, please confirm how our payment will be made as per final product i.e. A. Output basis A1 .M sand produced only A2 M sand+ waste basis B. Input boulder basis	Measurement for payments shall be made as per revised TCC Clause No 2.4 in line with corrigendum. No separate payment for waste is envisaged.

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Sl. No.	Reference clause of tender document	Existing Provision	Bidder's Query	BHEL's Clarification
15	TCC VOL III Price Schedule Item A1/A2/A3 & B1/B2/B3		Item A2 & B2 - the production process of M sand is such that there will be some moisture inherit to the product , please clarify if . A. Will there be any moisture deduction. B. If yes then, is there any allowable percentage of it.	Yes, moisture deduction is applicable. Refer revised clause 2.4 of TCC in line with corrigendum.
16	TCC VOL III Price Schedule Item A1/A2/A3 & B1/B2/B3		Item A3 & B3 - for production of material between 150 mm - 45mm which can only be produced through two stage and rates will be quoted accordingly to two stage only , & if below 45 mm to 4.36 mm can be produced either from two stage or three stage . As per best of our understanding of BOQ line items the item A2 & A3 also B2 & B3 are differential of cost based on technology used for rock processing .if material is required through three stage & above kindly clarify if the item will be billed under A2 & B2 and if it produced through two stage item can be billed through A3 & B3 .	Tender Condition Prevails
17			•Mobilization Timeline: Following the successful awarding of the tender, how many days will be granted to the bidder for mobilization activities, including: 1) Obtaining all necessary No Objection Certificates (NOCs) and government pollution approvals. 2) Mobilizing equipment and undertaking construction work for the crusher unit. 3) Completing any other pre-production requirements as outlined in the tender document.	Tender Condition Prevails

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Sl. No.	Reference clause of tender document	Existing Provision	Bidder's Query	BHEL's Clarification
18			Billing Schedule: The tender document mentions a monthly billing cycle. We would like to inquire about the possibility of adopting a fortnightly billing schedule instead. This would improve our cash flow management and expedite project completion.	Tender Condition Prevails

Note:

- 1) All other terms and conditions against this NIT shall remain unchanged.
- 2) This corrigendum is to be submitted duly signed and stamped along with the Techno-commercial bid (Part- I).

for BHARAT HEAVY ELECTRICALS LTD

AGM / SCT- CPC