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and OHSAS 18001 certified
company
SubContract and Purchase
Deptt.

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CORRIGENDUM-III

TENDER NO. BHEL/ NR/SCT/KOSTI/CIVIL/537

BHEL WEB SITE NIT REF: NIT_4934

SUBJECT: Amendment against tender for “Civil works for Boilers, ESPs, BOPs etc. for 4 x 125 MW Power Plant in Kosti, Sudan”.

This corrigendum contains following amends in the specifications and shall form a part of the above tender. This corrigendum is to be submitted, duly signed and stamped, along with the Technical bid (Part-I).

1.0 SL NO. 3.0 & 3.1 ARE HEREBY ADDED IN QUALIFYING REQUIREMENTS GIVEN IN TENDER NOTICE, WHICH SHALL BE READ AS FOLLOWS;

QR-3.0 “Tenderers are allowed to have tie up/ Joint Venture or consortia of companies subject to BHEL’s approval. The composition of the Tie-up arrangement and role and responsibility of each constituent for execution of the contract must be well defined. The document submitted shall clearly indicate that the partner meeting technical experience requirements shall be the lead partner. Number of partners in the tie up/joint venture companies or consortia of companies shall be limited to two. The tenderer shall give an undertaking that the responsibility of execution of entire work shall lie with the Lead Partner and also that in case of dissolution of Tie up/JV, the Lead Partner shall be liable for completing the work as per the terms of contract without any additional cost to BHEL or without affecting project schedule or they will immediately arrange necessary alternate tie up arrangements with another party meeting the QR requirement of this NIT (Subject to BHEL’s approval) and that in case the same is not arranged, BHEL will be free to get the work done through alternate sources at their (Contractor’s) risk and cost.

Legal documents of tie up/JV agreement, signed by both the partners, shall be submitted as a part of technical bid.

QR-3.1 For the purpose of qualifying requirements as given at QR SL NO. 2.0 i.e Financial Turnover, the collective financial position of both the partners shall be considered. However, information in this regard shall be furnished individually and collectively by the tenderer.

2.0 DESCRIPTION OF BOQ ITEM ST NO. 206 -- “T.G. Block and” and “Except top deck” stands deleted from the description and the amended description for this item shall be read as follows;

“Concrete of grade M-25 in machine foundations at all heights from finished floor level including addition of suitable plasticizer conforming to IS 9103-latest to achieve a slump more than 125mm in concrete as per manufacturer's recommendation with 20 mm nominal size graded aggregate”.

3.0 INCLUSION OF OPTIONAL ITEMS :- Items as per the list given below as ANNEXURE-I are added in the BOQ as optional items. The bidders shall quote unit rate of all the optional items and confirm in their technical bid that they have quoted for all the items. The rates of these items shall remain valid till completion of the contract. These works shall be carried out, if required, through the contractor finalized for the subject work, under direct supervision of BHEL engineers. The bidders shall give an undertaking as a part of their technical bid stating that they shall provide experienced manpower and resources required for the requisite work against these optional items, as and when offered for execution by BHEL. Evaluation criteria for considering the optional rates shall be finalized after the technical bid opening and shall be communicated to all the bidders.

4.0 Clause 39.1 of the tender stands amended by including supply of cement by BHEL free of cost. The amended clause 39.1 shall be read as follows;

CL 39.1 The contractor shall at his own expenses provide all materials including paints, welding electrodes etc. required for the work. However for permanent works Cement and reinforcement steel & structural steel will be issued free of cost . Terms & conditions for supply of reinforcement steel & structural steel are specified as below . For supply of cement, terms and conditions as per Cl 54 shall be applicable which is hereby appended (as per Annexure-II attached with this corrigendum) in the NIT.

5.0 Clause 16.2(e) of the tender pertaining to submission of BG towards Security Deposit is hereby amended and shall be read as follows;

“Bank Guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of BHEL”

6.0 Due date of submission and opening of the tender is hereby extended as follows;

LAST DATE OF SALE	:	12.09.2008
DUE DATE OF TENDER SUBMISSION	:	12.09.2008
DATE OF OPENING	:	12.09.2008

7.0 All other terms and conditions against this NIT shall remain unchanged.

AGM/SCP

OPTIONAL ITEMS

ANNEXURE-I

4X125 MW KOSTI Thermal Power Plant		RATE SCHEDULE FOR OPTIONAL ITEMS FOR CIVIL WORKS	
ST. NO	DESCRIPTION	UNIT	UNIT RATE IN USD
	TG FOUNDATION WORKS		
206-A	Concrete of grade M-25 in T.G. Block at all heights from finished floor level except top deck including addition of suitable plasticizer conforming to IS 9103-latest to achieve a slump more than 125mm in concrete as per manufacturer's recommendation with 20 mm nominal size graded aggregate.	CUM	
207	Concrete of grade M-25 in top deck of TG foundations including addition of suitable plasticizer conforming to IS 9103-latest to achieve a slump more than 125mm in concrete as per manufacturer's recommendation with 20 mm nominal size graded aggregate.	CUM	
305	Formwork for TG superstructure-fairface. (above finished floor level)	SQM	
2300	STRUCTURAL STEEL WORKS		
2301	Supply (except steel unless specified otherwise) ,fabrication, erection, alignment, welding, primer painting (primer coat consisting of 2 coats of redoxide zinc-chromate as per IS:2074 & IS:1477 (Parts I & II). One coat to be applied at shop and the other after erection) of structural steel made from mild steel conforming to IS:2062, pipes conforming to IS:1161/ IS:1239, chequered plate conforming to IS: 3052 and mild steel rounds, at all elevations involving rolled sections (including mild steel rounds), built up sections fabricated out of plates, rolled sections and combination of plates and rolled sections, in columns, beams, gantry girders, bunkers, silos, hoppers, roof trusses, portals, laced purlins, space frames, shear connectors, hangers, struts, monorails, galleries, stiffeners, wall beams, sheeting runners, brackets, stub columns, bracings, cleats, trestles, base plates, splice plates, chequered plate flooring, decking and seal plates, diaphragm, steel frame grid over false ceiling, walkway platforms, ladders, stairs, stringers, treads, landings, hand-rail(G.I),	MT	
	toeplates, MS Rungs, insert plates, edge angles, embedments, lugs, posts, stays, louvers, lacings, gusset plates, safety chains for walkways adjacent to crane girders etc, collection of steel from stores, transportation, straightening, making cutting plan, cutting, bending, rolling, grinding, drilling, bolting, erection bolts & nuts (weight erection bolts & nuts not payable, Supply of permanent bolt of grade C mild steel bolts & nuts to be paid separately under ST NO. 2310 (i)), assembly, edge preparation, preheating(& use of low hydrogen/ radiogenic electrodes as per specification), post heating, testing of welders, inspection of welds, visual inspection, non destructive and special testing, rectification and correction of defective welding works, production test plate, inspection and testing, erection scheme, protection against damage in transit, stability of structures, installation of temporary structures (Scaffolding, Access ladders, Working Platforms etc.), setting column bases, surface preparation, touch-up painting,		

OPTIONAL ITEMS

ANNEXURE-I

4X125 MW KOSTI Thermal Power Plant		RATE SCHEDULE FOR OPTIONAL ITEMS FOR CIVIL WORKS	
ST. NO	DESCRIPTION	UNIT	UNIT RATE IN USD
	dismantling and removal of all temporary structures (weight of temporary structures not payable) complete with all labour, material, electrodes and other consumables, equipment, testing (mechanical and non- destructive), preparation of fabrication drawings, joint design calculations and all other general and special requirements, all other activities required for completion of the work including return of surplus/ waste steel materials to store etc. as per specification, drawings and instructions of the Engineer. (Steel shall be supplied free of cost by BHEL as per Clause 39.1)		
2302	Extra over ST NO. 2301 for blast cleaning of steel structures to near white metal surface(Sa 2 1/2) and applying epoxy based zinc phosphate primer in coats of minimum 25 micron (DFT) at shop and 25 micron (DFT) after erection, instead of primer coat of red oxide zinc-chromate, including touch-up painting etc complete as per specification.	MT	
2303	Extra over ST NO. 2301 for providing and application of two coats of primer consisting of chemical resistant epoxy resin and hardener (Minimum 1 Kg of primer mix shall be consumed for priming of 4 to 5 m2 area of surface) instead of primer coat of red oxide zinc-chromate, including touch up painting as per specification and instruction of the Engineer.	MT	
2304	Treatment of structural steel complete including surface preparation, painting etc complete as per attached write up, specification, drawings and instructions of the Engineer.	MT	
2305	Providing & application of epoxy based colour finish paint in two coats with minimum 50 micron total thickness (DFT) of approved make and shade over steel sections already having primer coats (as per ST NO. 2302) at all elevations to achieve an even shade with all materials, labour, equipment, handling including protection and cleaning, scaffolding etc. complete as per specification, drawings and instruction of the Engineer.(Total thickness (DFT) including primer shall not be less than 100 micron.)	MT	
2306	Providing and application of chemical resistant epoxy mortar lining (minimum 3mm thick) over primer coat (as per ST NO. 2303),consisting of epoxy resin, hardener and quartz sand (not exceeding 7 parts by weight) to steel surfaces of all types, shapes and sizes at all elevations to achieve even surfaces with all material, labour, equipment, handling, scaffolding etc. complete as per manufacturer's specifications approved by Engineer.	MT	
2307	Providng & application of 2 coats of chemical resistant seal coat over lining (as per ST NO. 2306) to cover up the porosity @ minimum 1 Kg of mix per coat of application for 4 to 5 m ² area of the surface including labour, material, equipment, handling, scaffolding etc. complete as per manufacturer's specification approved by the Engineer.	MT	

OPTIONAL ITEMS

ANNEXURE-I

4X125 MW KOSTI Thermal Power Plant		RATE SCHEDULE FOR OPTIONAL ITEMS FOR CIVIL WORKS	
ST. NO	DESCRIPTION	UNIT	UNIT RATE IN USD
2308	Supplying, fabrication , transportation, erection and alignment of factory made electroforged gratings with steel conforming to IS:2062 at all elevations including preparation of design drawings and fabrication drawings in flooring, platforms, drain and trench covers, walk-ways, passages, staircases with edge binding strips and anti-skid nosing in treads, fixing clamps etc. complete with other fittings and fixtures including all taxes, duties, transportation, packing, grinding, drilling, bolting (supply of permanent grade `C' mild steel bolts and nuts to be paid separately under ST NO. 2310 (i), all welding, edge preparation, blast cleaning of steel surfaces to near white metal surface (Sa 2 1/2) followed by two coats of red oxide zinc-chromate primer and two coats of approved colour, enamel finish paint, testing, complete as per specifications, drawings and instructions of the Engineer.	MT	
2309	Extra over above ST NO. 2308, for finshing the fabricated grating unit with hot dipped galvanisation @ 610 gm/sqm over blast cleaned steel surfaces, as per specifications, drawings and instructions of Engineer instead of painting with 2 coats of red oxide primer followed by two coats of enamel finish paint.	MT	
2310	i) Supplying and fixing in position of permanent mild steel bolts (class 4.6 as per IS : 1367 and grade `C' as per IS: 1363) and nuts, washers etc. up to and inclusive of 39 mm diameter and upto 300mm long for structural steel work complete as per specification, drawings and instructions of the Engineer.	QUINTAL	
	ii) Supply and fixing in positing of high strength structural bolts (of property class 8.8 and product grade `C' as per IS: 1367) and conforming to IS: 3757 and high strength structural hardened and tempered nuts (of property class `8' as per IS:1367) conforming to IS:6623 with hardened and tempered washers as per IS:6649 etc. up to and inclusive of 39 mm diameter and upto 300 mm long for structural steel work complete as per specification, drawings and instructions of the Engineer.	QUINTAL	
2311	Dismantling of steel structure at any elevation, lowering of material and carriage of the dismantled material up to field fabrication shop, or, return to projects storage including temporary dismantling, cutting, re-welding, supporting, and restoring to correct position all temporarily dismantled members, re-alignment of all adjacent connected members to their correct positions, (weight of such adjacent members and temporarily dismantled members not payable) including scaffolding, staging, tools & tackles, gas cutting, welding, consumables, etc complete as per specification, drawings and instructions of the Engineer.	MT	
2312	Addition to, alterations in and/or modfication of "Erection Marks" either in erected position or in the shop including cutting of parts, gouging of welds, cutting, grinding, fabrication, welding, drilling holes, straightening, removal of bends, raising to the required level, painting, transportation, return of unutilised steel pieces to the project store, temporarily dismantling, cutting, re-welding, supporting and restoring to correct position of all the temporarily dismantled members, realignment of adjacent connected members, (weight of such temporarily dismantled and adjacent members not payable), complete as per specifications, drawings and instructions of the Engineer.		
	i) In erected position	MT	
	ii) In fabrication yard	MT	

OPTIONAL ITEMS

ANNEXURE-I

4X125 MW KOSTI Thermal Power Plant		RATE SCHEDULE FOR OPTIONAL ITEMS FOR CIVIL WORKS	
ST. NO	DESCRIPTION	UNIT	UNIT RATE IN USD
2313	Re-erection of dismantled fabricated structural steel members requiring additions, modification, (dismantling and additions to, alterations in and/or modification to be paid separately under ST NO. 2312 and 2313 respectively) including carriage of modified "Erection Marks" from the field fabrication shop to erection site, lifting to required position, aligning in position, tack welding, final welding and touch up painting including temporary dismantling and re-erection of temporarily dismantled members, cutting, rewelding, supporting and restoring to the correct position of all temporarily dismantled members, re-alignment of adjacent connected members, (weight of such temporarily dismantled members and adjacent members not payable) including scaffolding, staging, tools & tackles, gas cutting, welding, consumables, etc complete as per the specifications, drawings and instructions of the Engineer.	MT	

ANNEXURE-II

54.0 ISSUE AND ACCOUNTING OF CEMENT

- 54.1 Cement will be issued by BHEL as a free issue materials from BHEL site stores or other issue points as specified by the Engineer. Such issues would be only for permanent works. Necessary indents shall be raised by the contractor as per procedure laid down by the Engineer-in-Charge about 7 days in advance of the actual requirement for incorporation in the works.
- 54.2 Materials will be issued only for permanent works and not for making templates, other temporary works, enabling works etc. and the same shall not be taken into account for purpose of material reconciliation.
- 54.3 The contractor shall bear all other costs including the lifting, carting from issue points to works site/contractor's stores, custody and handling etc. and return of surplus to Owner's stores to be designated by the Engineer-in- charge and all expenditure will be made by the contractor.
- 54.4 Cement, as received from the Manufacturer/ Stockiest will be issued to the contractor. The theoretical weight of each bag of cement for issue purpose will be considered as 50Kgs. Per Bag (or other specific weight as mentioned on bag / container). Any type of cement and in any container as received from Manufacturer / Stockiest shall be issued to the contractor No claim whatsoever shall be entertained on this. Cement bags weighing upto 4% less will be accepted by the contractor and accounted for as 50Kg per bag (or other specific weight as mentioned on bag / container).
- 54.5 The Contractor shall maintain good stores for storing the cement issued to him. The flooring of the storage house, the clearance of cement bags from the side walls etc., shall be as per the instructions of the Engineer-in-charge.
- 54.6 The cement stores shall be open for supervision and verification by the Engineer-in-charge or his authorised representative by any time when the Engineer-in-charge feels the need to do so.
- 54.7 Issue of stores material is subject to availability and the contractor shall not be entitled to any claim or compensation for non-supply or delay in the supply under any circumstances. The material will be issued generally during the working hours.
- 54.8 The Contractor shall bear all incidental costs including site lifting, carting from issue points to site / contractor's store, custody and handling etc., and return of surplus to Owner's Storage points designated by the Owner etc. and no separate payment for such expenditure shall be made.
- 54.9 The Contractor will have to submit their design mix for different grades of Concrete keeping in view the requirements stipulated in IS:456, specifically regarding slump and Water Cement ratio and Specific Gravity of Materials brought to site as analysed in the laboratories. The design shall be used upon absolute volume method and theoretical consumption of Cement shall be worked out on this basis. For other than above designated mix Concrete items, the coefficients for consumption of cement

shall be adopted as per agreed international practice. The theoretical consumption of cement thus worked out shall be binding upon the Contractor for reconciliation of Cement issued by the Owner. For any excess /under consumption based on these coefficients, the Contractor shall be penalised as per contract provisions. Though, permissible wastage specified shall be considered, while effecting penal recovery, no other allowance whatsoever shall be taken for reconciliation purposes.

- 54.10 The theoretical consumption of cement required for the work will be calculated on the basis of approved drawings / joint measurements. The theoretical consumption shall be decided by the Engineer as mentioned above and his decision in this regard shall be final and binding on the Contractor.
- 54.11 The contractor shall submit proper account of material / material reconciliation statement for the material drawn by him from stores once in every three months. Failing compliance of this requirement further issue of steel to the contractor may be suspended and no claim of compensation for delay in execution on this account shall be entertained.
- 54.12 All the cement thus issued shall be properly accounted for as per the permissible wastage of 2 % over the theoretical quantity / consumption incorporated in the works.
- 54.13 Any unused / serviceable quantity of cement not returned in good condition & wastages / loss / consumption beyond specified / agreed limits shall be charged at penal rate of USD 500 per MT for cement, at the time of preparing final bill, during finalisation of the contract. The decision of Engineer-in-charge with regard to applicability of penal rates shall be final & binding upon the contractor.