

TENDER SPECIFICATION

NO: BHE/PW/PUR/SAT-BAL CVL PKG-I/1274

BALANCE CIVILWORKS OF ROADS, DRAINS AND CULVERTS INSIDE
BOUNDARY WALL.

AT

2 X 250 MW Satpura Thermal Power Station

MADHYA PRADESH POWER GENERATION CORPORATION LTD.
(MPPGCL)

DIST- BETUL

MADHYA PRADESH

VOLUME-II – PRICE BID-1274



BHARAT HEAVY ELECTRICALS LIMITED

(A GOVERNMENT OF INDIA UNDERTAKING)

POWER SECTOR - WESTERN REGION

SHREEMOHINI COMPLEX

345, KINGSWAY - NAGPUR 440 001

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T E N D E R S P E C I F I C A T I O N

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EARNEST MONEY DEPOSIT: Please see Notice Inviting Tender.

LAST DATE FOR: Please see Notice Inviting Tender.

TENDER SUBMISSION:

THESE TENDER SPECIFICATION DOCUMENTS CONTAINING **VOLUME-I-Tech Bid**, **VOLUME- II-Price Bid** AND
VOLIME-IBCD Rev-01 ARE ISSUED TO:

M/s.

PLEASE NOTE:

THESE TENDER SPECS DOCUMENTS ARE NOT TRANSFERABLE.

For Bharat Heavy Electricals Limited

AGM (Purchase)

Place: Nagpur

Date:

Package-I: BALANCE CIVIL WORKS OF ROADS, DRAINS AND CULVERTS INSIDE BOUNDRY WALL AT 2 X 250 MW Satpura Thermal Power Station MADHYA PRADESH POWER GENERATION CORPORATION LTD. (MPPGCL) DIST- BETUL MADHYA PRADESH						
ST. NO	DESCRIPTION OF ITEMS	Unit	Quantity	Unit Rates in Figures (In Rs)	Unit Rates in Words (In Rs)	Total Amounts (In Rs)
100	EARTH WORK IN EXCAVATION, BACKFILLING AND DISPOSAL AS PER SPECIFICATION, DRAWINGS AND AS DIRECTED BY ENGINEER FOR THE FOLLOWING:-					
101	Earthwork in excavation upto 2m depth below ground level for foundation, trenches, pipe lines, storm water drains etc including setting out, clearing & grubbing, removal of debris, dewatering if required, strutting, shoring/sheet piling if required, dressing the sides, levelling to grade and ramming the bottom, stacking/disposal of surplus excavated material within a lead of 1.0 KM etc complete for all types of soils including ash, laterite, morrum, weathered rock, decomposed rock, soft rock etc which can be excavated by means of crow bar, pick axe, pneumatic rock breaker attachment with poclair/excavator etc but does not require chiselling or blasting.	CUM	5865.00			
102	Earth work in excavation upto 2m depth below ground level for foundation, trenches, pipe lines, storm water drains etc including setting out, clearing & grubbing, removal of debris, dewatering if required, strutting, shoring/sheet piling if required, dressing the sides, levelling to grade and stacking/disposal of surplus excavated material within a lead of 1.0 KM etc complete for hard rock requiring blasting/controlled blasting and/or chiselling, wedging, line drilling, pre shearing or any other means including supply, storage, handling of blasting materials etc without damaging the existing structures and as approved by Engineer.	CUM	150.00			
116	Disposal of surplus excavated earth/rock beyond an initial lead of 1km in/outside of the plant at the area earmarked by BHEL/BHEL's Customer for the following lead dumping and levelling the dumped soil/rock and levelling the area from where the material is transported, complete with all lifts as specified and directed by Engineer.					
b	Carriage beyond initial lead of 1 KM but not exceeding 3 Km.	CUM	4637.00			
118	Back filling around foundations and plinths, etc.to proper grade and level with selected materials within a lead beyond 1 Km but not exceeding 5 Kms. from available excavated soil including re-excavating loose thickness, watering and ramming in layers of 25 cm. thickness to 80% max. dry denisty by manual / mechanical means, compaction with mechanised compaction machine, dressing etc. complete including transportation.	CUM	1078.00			

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ST. NO	DESCRIPTION OF ITEMS	Unit	Quantity	Unit Rates in Figures (In Rs)	Unit Rates in Words (In Rs)	Total Amounts (In Rs)
118-X	Back filling around foundations in plinths etc.to proper grade and level with selected materials within a lead upto 1 Km from available excavated soil including re-excavating loose thickness, watering and ramming in layers of 25 cm. thickness so as to achive atleast 90% maximum dry denisty by manual / mechanical means, compaction with mechanised compaction machine, dressing etc. complete including transportation.	CUM	200.00			
121 b	Providing and laying stone soling with specified sizes of approved quality hard rock rubble or hand broken hard metal of sizes ranging from 100mm to 230mm , at all position and depths below or above finished ground floor level, below foundations, below flooring, and for providing hard standing etc in one or more layers each of approximately 230mm thickness , hand packing, filling in interstices with quarry spalls and providing a layer of 50mm. thickness (consolidated) of moorum over each layer of soling including watering, thoroughly compacting each layer with 10 tonne power roller with minimum 6 passes (or with vibrating plate of approved capacity at places not approachable by power roller) all as per the direction of the Engineer and as per specification.	CUM	150.00			
200	PROVIDING AND PLACING CONCRETE WORK INCLUDING COST OF LABOUR, MATERIALS AND EQUIPMENT FOR HANDLING, TRANSPORTATION, BATCHING, MIXING, PLACING, VIBRATING AND CURING, (EXCLUDING COST OF CENTERING, SHUTTERING AND REINFORCEMENT) USING ORDINARY PORTLAND CEMENT GRADE - 43/53 AS PER SECTION - 4 OF COMMERCIAL BID VOL.I COMPLETE AT ALL ELEVATIONS AS PER DRAWING, SPECIFICATIONS UNLESS SPECIFIED OTHERWISE AND AS DIRECTED BY ENGINEER FOR THE FOLLOWING:					
202	Plain Cement Concrete of grade M15 as levelling course ,filling, under water retaining structures, equipment foundations, under foundations/floors etc all complete using Ordinary Port land cement 43 Grade	CUM	1424.00			
205	Concrete of grade M-25 conforming to IS:456 with coarse sand and graded hard stone aggregate 20mm nominal size in foundations , under floors etc at any level below finished floor level, any shape, position or thickness etc complete including use of plasticizer/ superplasticizer conforming to IS:9103 (latest) to achieve required slump in concrete all complete using Ordinary Port land cement 43 Grade	CUM	750.00			

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ST. NO	DESCRIPTION OF ITEMS	Unit	Quantity	Unit Rates in Figures (In Rs)	Unit Rates in Words (In Rs)	Total Amounts (In Rs)
205X	Concrete of grade M-30 conforming to IS:456 with coarse sand and graded hard stone aggregate 20mm nominal size in roads , etc providing dowel bars with sleeve/ tie bars wherever required, laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/ camber, finishing with required texture, curing, making provision for contraction/ expansion, construction & longitudinal joints by groove cutting machine, providing and filling joints with approved joint filler and sealants, etc all complete as per drawing and as directed by engineer-in-charge including use of plasticizer/ superplasticizer conforming to IS:9103 (latest) to achieve required slump in concrete all complete using Ordinary Port land cement 43 Grade (Item of joint fillers, sealants, dowel bars with sleeve/ tie bars to be paid relevant items).	CUM	3000.00			
205XX	Providing and fixing of guard stone pre cast post 150X150 square 900mm height painted with yellow and black (type).	Nos.	50.00			
300	SUPPLYING, FIXING AND REMOVING FORMWORK AT ANY ELEVATION INCLUDING ALL LABOUR, MATERIAL, SCAFFOLDING COMPLETE INCLUDING POCKETS ETC. AS PER SPECIFICATIONS AND AS DIRECTED BY ENGINEER FOR THE FOLLOWING:					
301	Ordinary form work (reasonably good steel/plywood surface) below finished ground floor level for foundations, footings, bases of columns, walls, columns pilasters, beams, mass concrete, trenches etc.	SQM	8070.00			
400	REINFORCEMENTS					
402	Providing, straightening, decoiling if any, cutting, bending, placing in position at any level, binding in position of tor steel reinforcements conforming to grade Fe- 415/500 and IS:1786 procured from SAIL including cost of binding wire, labour, transportation etc complete all as per specifications, drawings and as directed by Engineer. Measurement shall be on the basis of actual steel materials used in the job as per joint protocol including spacer bars, chairs, laps, extra bars if any as per actual site condition. (All the scrap & surplus steel materials shall be the property of contractor & shall be permitted to take out after obtaining necessary gate passes from BHEL/MPPGCL	MT	205.00			

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ST. NO	DESCRIPTION OF ITEMS	Unit	Quantity	Unit Rates in Figures (In Rs)	Unit Rates in Words (In Rs)	Total Amounts (In Rs)
500	WATER PROOFING AS PER SPECIFICATIONS. (Contractor has to furnish a guarantee for material and workmanship of Roof water proofing, for a minimum period of 10 years as per specifications.To ensure this successful BIDDER has to submit BG / FD for equivalent amount of respective items valid for 10 years period)					
510	Providing and applying two coats of bitumen grade 85/25 as per IS 702 mixed with 1% antistripping compound meeting the requirement of IS 6241 on concrete surface The Total application of bitumen shall be 2.0KG/sq.M.	SQM	1400.00			
600	SUPPLYING & INSTALLATION OF PREMOULDED JOINT FILLER IN BETWEEN EQUIPMENT FOUNDATIONS, MAT FOUNDATIONS, PILE CAPS, WALLS, BASEMENT SLABS ETC. COMPLETE INCLUDING LABOUR, EQUIPMENT AND MATERIALS, SEALING OF JOINTS INCLUDING COST OF SEALING COMPOUND (POLYSULFIDE BASE SEALANT AS PER IS:12118) ETC. COMPLETE AS PER SPECIFICATIONS AND DRAWINGS OR AS DIRECTED BY ENGINEER FOR THE FOLLOWING:					
601	15mm thick joints.	SQM	522.50			
602	20mm thick joints.	SQM	10.50			
700	M.S. EMBEDMENTS					
701	Supply, fabricating and fixing of embedments, MS inserts , pipe sleeves, guide rails, angle pieces, rungs of various diameters, plates of dimensions as required including cost of all labour, materials and equipment, transportation, loading, unloading, handling, welding, cutting, drilling, scaffolding and setting complete as per specifications, drawings and as directed by Engineer.	MT	83.00			
1804 BOQ Part-I	Providing and fixing bitumen impregnated fibre joint filling board of following thickness,					
a	15mm thick joints.	SQM	100.00			
b	20mm thick joints.	SQM	200.00			

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ST. NO	DESCRIPTION OF ITEMS	Unit	Quantity	Unit Rates in Figures (In Rs)	Unit Rates in Words (In Rs)	Total Amounts (In Rs)
2400	ROAD WORK (MAIN PLANT ROAD & APPROACH WBM ROAD FROM MAIN ROAD TO OPEN STORAGE YARD)					
2401	Preparation of sub grade for construction of Plant Roads, approach road (WBM road from main road to open storage yard) by excavating earth to required depth for all types of soil , dressing to camber and consolidating the base including making good the undulation etc. and disposal of surplus earth within a lead of 1.0 KM in accordance with IS:2720 all complete as per specification.	CUM.	3500.00			
2402	Supplying and filling with selected good earth obtained from excavation of approved quality under pavement and shoulders etc. in compacted layers of 200 mm thk. including watering, rolling/consolidating and dressing etc. to required camber including transportation, royalties complete.	CUM.	1078.00			
2404	Providing and Laying water bound macadam base/sub base course in layers of required thickness with stone aggregate 90mm to 40mm size stone screening and binding material including screening, sorting, spreading to template and consolidation with road roller including carriage spreading and consolidation of blinding material moorum etc Including cost of material,labour,all complete.	CUM.	2200.00			
2412	Supply and laying (400mm x 150mm X 350mm deep) precast concrete kerb stone (Concrete grade M20) of shape as per detailed drawing including fixing in 13mm thk. cement mortar 1:2 in joints, finishing of joints with neat cement paste, making drainage opening where required etc. complete as per spec.	RM	4000.00			
2413 (a)	Supply and laying 150mm dia R.C.C NP-2 type Hume pipe in raised shoulders as rain water drains as per detailed drawing including fixing in 13mm thk. cement mortar, finishing of joints with neat cement paste complete as per spec.	RM				
c)	Supplying & laying storm water drain crossing the roads by RCC hume pipe class NP3 with 450mm dia.	RM	30.00			
d)	Supplying & laying storm water drain crossing the roads by RCC hume pipe class NP3 with 600mm dia.	RM	35.00			
TOTAL AMOUNT (IN RS)						

Total Amount In Rs (In Words)