

VOL-IA TECHNICAL CONDITIONS OF CONTRACT (TCC)
CHAPTER XI –
BILL OF QUANTITY AND % WEIGHTAGES FOR ITEM RATES W.R.T TOTAL LUMPSUM PRICE (PART-B)

Piling Work (Job piles as well as test piles), excavation upto pile cut off level, breaking of piles upto pile cut off level and exposing the reinforcement , testing of piles, PCC and handing over the piles to the next agency complete in all respect at 1x51 MW Combined Cycle Captive Power Plant, ONGC Hazira Site, Gujarat				
ST. NO	DESCRIPTION OF ITEM	UNIT	Quantity	% Weightage
100 EARTH WORK				
	Earth work In excavation, backfilling and disposal including necessary men/women, materials, equipment, loading, transportation, unloading, dewatering etc as per specification, drawing and as directed by engineer- in-charge for the following.			
101	Earth work in excavation in all types of soil including ash which can be excavated by any means including setting out, levelling, dewatering (but excluding special type of dewatering viz. well point method), shoring & strutting (wherever required), dressing the sides & bottom, all lifts, ramming/compacting the excavated bottom, stacking, disposal of surplus excavated materials within a lead upto 5km, spreading/levelling of disposed materials etc all complete for following depths below ground level.			
a	Depth from ground level but not exceeding 2 m	CUM	12200	2.372685371
109	Extra over ST No. 101 and 103 to 107 for carriage of excavated earth/selected materials for every 1 km or part thereof beyond an initial lead of 500m.	CUM	6000	0.420082
110	Back filling upto any depth below ground level around foundations, plinths, trenches, drains etc to proper grade and level in layers not exceeding 200 mm thickness using/with approved borrowed CNS soil (borrowed soil to be arranged by the bidder) and compacted as specified including supplying borrowed soil, royalty (if any), watering, ramming/compaction by manual/mechanical means, dressing etc all complete for the following.			
a	Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	CUM	420	0.227894485
200 Concrete Works				
	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) . complete as per drawing, specifications and as per direction of engineer in charge for the following. (Cement will be provided by BHEL as per TCC)			
201	Concrete of grade M7.5 (1 part cement, 4 part sand, 8 parts of 40 mm graded aggregate by volume) as lean concrete, levelling course , mud mat under and around foundations/floors at any depth below finished floor level etc.	CUM	400	1.085167561
201(a)	Concrete of 1 part cement, 5 part sand, 10 parts of 40 mm graded aggregate by volume as filling course at any depth below finished floor level, under and around foundations/floors, mass fill etc	CUM	100	0.284711493
203	Concrete of grade M15 (1 part cement, 2 part sand, 4 parts of 40 mm graded aggregate by volume) as lean concrete, levelling course , mud mat under and around foundations/floors at any depth below finished floor level etc.	CUM	10	0.020871599
2011	Supply, fabricating and fixing of structural barricading using rolled section of not less than ISA 75x75x8/ ISMC 100 as a supporting member (vertical posts), , 32 NB MS pipe as horizontal runners (minimum 4 rows) at specific intervals and G.I corrugated sheet of minimum 24 gauge. Height of barricading shall be minimum 10M from ground level .Necessary air gap shall be maintained at specific interval to suit at site conditions.Barricading should be designed to withstand the wind pressure on that location. Rate shall be inclusive of design,submission & approval by BHEL engineer. On completion of the job the barricading material shall be dismantelled and handed over to BHEL.(Refer Drawing No. : BHE/PW/OY-11) .Structural Material will be Provided by BHEL Free of cost. (Vendor has to provide all the material required for completion of barricading except Structural Materials ISA 75x75x8 & ISA 50X50X6 which will be Provided by BHEL Free of cost)	RM	500	7.653855147

SEAL AND SIGN OF BIDDER

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ST. NO	DESCRIPTION OF ITEM	UNIT	Quantity	% Weightage
215	Dismantling concrete work for all types of structures at all levels including stacking of servicable material to a lead of 500 m and disposal of unservicable material upto a lead of 2 km, cutting of reinforcement, labour, equipment, safety precautions etc all complete as per drawings, specification and instructions of engineer in charge.			
a	Plain cement concrete of all grades	CUM	10	0.035201316
b	Reinforced cement concrete of all grades	CUM	10	0.049690255
1000 BRICKWORK				
1006	Breaking of existing brick work at all levels including plastering, removing the rubbish up to a distance of 500 m including transportation, loading, unloading etc. all complete as directed by the engineer.	CUM	20	0.033373181
2300 STRUCTURAL STEEL				
2312	Dismantling of steel structure , lowering of material and carriage of the dismantled material up to field fabrication shop / 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), scaffolding, staging, tools & tackles, gas cutting, welding, consumables etc all complete.	MT	1	0.015657779
300 FORM WORKS				
	Providing, fixing and removing formwork at any elevations for all structures, as per specifications and including all labour, material, scaffoldings and centering complete including pockets etc. complete as per drawing, specifications and as per direction of engineer in charge for the following.			
301	Fairface form work with good quality water proof ply wood of required thickness and smooth surface below finished ground floor level for foundations, footings, base of columns, walls, columns, pilasters, beams, mass concrete, trenches etc.	SQM	340	0.204984458
400 REINFORCEMENT				
405	Taking delivery of steel from BHEL stores / store yard, loading, Transportation, unloading, straightening, cutting, bending, placing in position at any level, binding in position of corrosion resistant steel -HCRM re-bars of approved make with steel of grade Fe-500 confirming to IS:1786 norms including cost of binding wire, labour, scaffolding, transportation to & from stores etc complete all as per specifications, drawings and as directed by Engineer.	MT	320	4.333810962
2500 PILING WORKS				
2501	Mobilisation of two sets of hydraulic rotary piling rigs and accessories capable of pile boring/drilling in all types of strata/installing various size of bored cast in situ RCC piles to project site and demobilisation of the same after completion of piling works etc all complete.	LS	1	2.010967542
2502	Mobilisation of two sets of conventional DMC/RMC piling rigs and accessories capable of pile boring/drilling in all types of strata/installing various size of bored cast in situ RCC piles to project site and demobilisation of the same after completion of piling works etc all complete.	LS	1	0.580318001

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ST. NO	DESCRIPTION OF ITEM	UNIT	Quantity	% Weightage
2503	Installation of Bored cast-in-situ RCC vertical pile as per IS 2911 (Part 1 Sec 2) with diameter and length as specified (length to be measured from pile cut-off level to the bottom of pile) using cement concrete grade M 30 conforming to IS:456 with 20 mm nominal size stone aggregates with a minimum cement content of 400Kg per cum of concrete including providing all materials (but excluding reinforcement steel for which measurement/payment shall be made separately), boring/drilling in all types of soil, providing bentonite slurry and/or casing for stabilization of pile bore, flushing of pile bore, cleaning, providing plasticizer wherever required, breaking pile head to cut off level and exposing pile reinforcement for embedment in pile cap etc including empty boring from ground level to pile cutoff level etc all complete as per specification, drawing and as directed by the engineer-in-charge for the following. (Cement will be provided by BHEL as per TCC) Note: 1) Contractor has to get the concrete Mix design from BHEL/ ONGC's approved lab/ reputed institutions.			
b	Pile with 500 mm diameter and 18 m length below cut off level	Each	908	76.78060465
2504	Extra over ST. No. 2503 for pile length more than the specified length of 18m below cut off level for the following.			
b	For 500 mm diameter pile	Rm	108	0.366066243
2505	Rebate on ST.No.2503 for pile length less than the specified length of 18m below cut off level for the following.			
b	For 500 mm diameter pile	Rm	108	0.26041562
2508	Conducting routine load test on single job pile as specified in accordance with IS 2911 (Part-4) including preparation of pile head for testing, necessary excavation, providing all arrangements of loading, unloading, test equipments/accessories, jacks, recording of results, labour, submission of test report etc but excluding the cost of installation of job pile complete as per specification, drawing and as directed by the engineer-in-charge for the following.			
a	For vertical compression test by maintained load method			
ii	500 mm diameter pile	Each	15	2.444877241
b	For lateral load test			
ii	500 mm diameter pile	Each	15	0.75156754
2509	Carrying out pile integrity test on 450mm/500mm/ 600mm/760mm/900mm diameter pile including all arrangements for test, equipments/accessories, materials, labour, submission of test report etc but excluding the cost of installation of job pile all complete as per specification and as directed by the engineer-in-charge.	Each	28	0.067197561
Total Sum of Weightages				100.0000000

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