

TECHNICAL CONDITIONS OF CONTRACT (TCC)
CHAPTER IX – BILL OF QUANTITIES %age WEIGHTAGE OF INDIVIDUAL ITEMS

Job: Geo Technical Investigation work at NTPC Ltd, Ramagundam, Telangana STPP, Phase-I (2x800MW), District-Karimnagar, State-Telangana.				
SL.	Item Description	UNIT	QTY.	Weightage %
1	Mobilisation of necessary equipments, men and materials to the project site for carrying out the geotechnical investigation and demobilisation of the same after completion of all the field works etc all complete as per specification, drawings and as directed by the engineer-in-charge.	LS	1	8.865843
2	Making 150mm nominal diameter bore hole up to a maximum depth of 20 m below ground level at various locations in all types of soil including soft rock using suitable approved method of boring including chiselling, cleaning, providing casing pipes as required or as directed; performing standard penetration test at every 1 m interval alternate to collection of undisturbed soil samples up to 5 m depth below ground level and at every 1.5 m interval alternate to collection of undisturbed soil samples beyond 5 m depth, at change of strata and at depths wherever undisturbed soil samples could not be collected; collection of undisturbed sample (UDS) at every 1 m interval alternate to conducting standard penetration test up to 5 m depth below ground level and at every 1.5 m interval alternate to conducting standard penetration test beyond 5 m depth; collection of disturbed soil samples and water samples, sealing and packing of samples, observation such as ground water table etc; transportation of all the collected samples to the laboratory and back filling of boreholes with sand on completion of the same etc all complete as per specification and as directed by the engineer-in-charge for depth below ground level as given below .	M	30	2.154394
3	Core drilling (Nx size) in rock using hydraulic feed rotary drill and double tube core barrel with diamond bit including collection of core samples, performing SPT at locations where core recovery is less than 20%, maintaining continuous record of core recovery and RQD, keeping the cores in wooden core boxes, transporting the cores to laboratory, back filling the holes with 1 part of cement : 3 part of sand grout on completion of the same etc all complete as per specification, drawings and as directed by the engineer-in-charge.	M	320	45.041419
4	Conducting cross hole shear wave test in bore hole in all types of soil at all depths viz depths at 2m, 4m, 6m, 8m, 10m, 12m, 15m, 17m & 20m below ground level including preparation of borehole, providing PVC liner, grouting and backfilling with sand after completion of the test etc. all complete as per specification, drawings and as directed by the engineer-in-charge.	Each	3	32.555476
5	Conducting electrical resistivity test at various locations complete as per specification, drawings and as directed by the engineer-in-charge.	Each	6	1.404326
6	Conducting laboratory test on soil samples at an approved laboratory including preparation of soil samples to determine the following properties etc all complete as per specification.			0
	a)Bulk density and moisture content	Each	22	0.116957
	b)Sieve analysis	Each	22	0.116957
	c)Hydrometer analysis	Each	22	0.116957
	d)Liquid limit and plastic limit	Each	11	0.058478
	e)Shrinkage limit	Each	6	0.031911
	f)Specific gravity	Each	6	0.031911
	g) Swell pressure	Each	6	0.095733
	h) Free swell index	Each	5	0.03985
	i) Relative density	Each	5	0.03985
	j) Unconfined compressive strength	Each	5	0.079778
	k) Direct shear test	Each	5	0.078175
	l) Triaxial shear test			0
	i)unconsolidated undrained test	Each	5	0.053134
	m) One dimensional consolidation test	Each	5	0.15635

SEAL AND SIGN OF BIDDER

PLACE

Tender Specification Number: BHE/PW/PUR/RGMT-GEO/1627

1 of 2

TECHNICAL CONDITIONS OF CONTRACT (TCC)
CHAPTER IX – BILL OF QUANTITIES %age WEIGHTAGE OF INDIVIDUAL ITEMS

Job: Geo Technical Investigation work at NTPC Ltd, Ramagundam, Telangana STPP, Phase-I (2x800MW), District-Karimnagar, State-Telangana.				
SL.	Item Description	UNIT	QTY.	Weightage %
	n) Standard Proctor compaction test	Each	5	0.319112
	o) CBR test	Each	4	0.319112
	p) Chemical analysis	Each	5	0.159556
7	Conducting laboratory test on rock samples including preparation of the samples to determine the following properties etc all complete as per specification.			0
	a)Moisture content, porosity & density	Each	22	0.23399
	b)Specific gravity	Each	11	0.116957
	c)Slake durability index	Each	22	0.585091
	d)Unconfined compressive strength (both at saturated and in-situ water content)	Each	22	0.917487
	e)Point load strength	Each	22	0.917487
	f)Hardness	Each	22	0.23399
	g)Soundness	Each	22	0.23399
	h) Deformability (both at saturated and in-situ water content)	Each	22	0.936191
8	Conducting chemical test on water samples to determine the carbonate, sulphate, chloride and nitrate contents, pH value, turbidity, organic matter and any other chemicals harmful to foundation material etc all complete as per specification.	Each	5	0.265902
9	Submitting Preparation and submission of draft report in 3 copies and final report in 8 hard copies and 2 soft copies on CD after the approval of draft report including all field records, laboratory test results, graphs, analysis of test results, photo graphs showing details of field tests/soil/rock samples/Trail pits and recommendation etc all complete as per specification.	LS	1	3.723636
	GRAND TOTAL			100

SEAL AND SIGN OF BIDDER

PLACE

Tender Specification Number: BHE/PW/PUR/RGMT-GEO/1627

2 of 2