


Providing and placing of RCC counter weights for wagon tippler and side arm charger has been excluded from the scope of CHP lump sum package. However for the conveyor system as well as stacker reclaimer only casting of RCC counterweights stays included in the scope of the contractor. Transportation of the counter weights from the casting site to the location of placement as well as placing of counter weights is not in the scope of the contractor. For clarity, refer the revised scope of work for the CHP package.


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SECTION – A

-: SCOPE OF WORK :-


1.0	The scope of work in general, comprises the detailed design engineering, supply and construction of all civil, structural, architectural and finishing works required for the civil and structural works of coal handling plant on EPC basis, for all the structures / buildings described in Volume-2 “Technical Specifications for Coal Handling System” except for the electrical buildings, DS pump houses, wagon tippler sheds and coal stockyard area upto decantation tank. The scope of work for the electrical buildings, DS pump houses, wagon tippler sheds and coal stockyard area upto decantation tank comprises of the supply and construction of all civil, structural, architectural and finishing works required for the civil and structural works.
2.0	Primarily the kind of civil and structural works required for the structures and buildings of the CHP shall consist of, but not limited to, the following :-
2.1	Area clearance - the area to be excavated shall be cleared of all vegetation / foreign materials and the spoils shall be deposited at places directed by Engineer-in-Charge.
2.2	All excavation works in all types of soils / rocks including backfilling around completed structures, dewatering, as necessary including well point system if required, transportation and disposing and stock piling of surplus excavated materials as directed by Engineer, shoring, strutting, leveling and grading.
2.3	Enabling works like diaphragm walls / sheet piling to ensure availability of suitable working areas with due regard to safety of the existing structures and their foundations.
2.5	RCC work in underground & overground buildings / structures, foundations, floors, lintels, roof slabs, precast concrete, storm anchors for stacker reclaimer, etc. at all levels including piling work if any required.
2.6	Works shall involve arranging construction water from terminal points arranged by the customer, storage in underground /overground tanks and taking the water to construction site through pipe lines by pumping or by road tankers etc.
2.7	Bidder shall construct and maintain temporary access roads as required for approach to the buildings / facilities for construction / erection activities.
2.8	Details / data of all openings required in floors / walls / cladding / roof to be provided by the customer shall be given by the contractor .

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2.9	Providing counter weight blocks with edge angle for each conveyor system and also placing of counter weight blocks in stacker & Reclaimer machines
2.10	Structural steel works for conveyor galleries, trestles, junction towers, crusher house superstructures, cable racks , main plant area& any other buildings/ structures mentioned in the drawings.
2.11	Permanently colour coated steel sheeting over roofs / sides properly screwed or locked to steel structures of conveyor galleries, Transfer Points, crusher house, etc., all as given in volume-2 of technical specifications.
2.12	Sub grade and base preparation with rubble soling, etc. for Plinth protection, area paving pavements, grade slabs, etc.
2.13	Brick masonry work in cement mortar at all levels.
2.14	Cement plasters, painting, etc., on internal and external walls.
2.15	Steel / aluminum doors, windows and ventilators including glazing, etc. complete.
2.16	Painting of str. Steel members, plastered walls, doors, windows, etc.
2.17	All types of floor finishing such as IPS, Ironite, etc.
2.18	Damp proofing and cement / chemical grouting of underground structures.
2.19	Roof water proofing treatment, over / under deck roof insulation, Roof gutters and rain water down comer pipes.
2.20	Plinth protection, garland drains, storm water drains connected to nearest existing drains / final disposal point, as required.
2.21	All sanitary and sewage fittings and plumbing work for water supply and sewerage.
2.22	Septic tanks, soak pits, sewer lines, inspection chambers, manholes, etc.
2.23	Staircases, walkways, handrails, etc.
2.24	Providing and placement of insert plates, kerb angles, anchor bolts, etc. in RCC members including placement of embedment's supplied free by employer / BHEL and other contractors.
2.25	Cable / pipe trenches and racks. Pipe saddle supports.

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2.26	Roads, pavements, drains, drain pits, culverts, etc.
2.27	Civil works for dust suppression system, Dust extraction system, service water, potable water, cooling water lines etc.
2.28	Surveying, geotechnical investigations, field and laboratory testings, etc., if necessary.
2.29	Area clearance, leveling and grading.
3.0	The works covered in the contract shall include supplying of all materials (except materials free by BHEL and other contractors), labour, tools, plant and equipments, transportation, fabrication, supervision, construction as per drawings including embedment of bolts, inserts, leaving holes, pockets, grooves, chamfers as shown therein and all incidental items not shown or specified but reasonably implied and necessary for satisfactorily completing the project as a whole.
4.0	It is not the intent to specify completely herein all details of design and construction of the works covered under this specification. All works shall be done as per Volume-2- Technical specifications for coal handling system at Bellary and as per approved construction drawings and in a manner acceptable to "Engineer", who shall have the power to reject any work or material which in his judgment is not in full accordance therewith. In case of any conflict regarding the interpretation of the intent or meaning of the specifications or drawings, Engineer shall interpret such intent or meaning, which will be final and binding on the contractor.
5.0	The scope of work shall include detailed engineering for civil and structural works (except for the electrical buildings, DS pump houses, wagon tippler shed and coal storage area upto decantation tank) including preparation of fabrication drawings for str. steel works, submission and obtaining approvals on designs, drawings and other engineering documents from all the approval authorities involved including statutory authorities, where applicable .
6.0	The scope of work also includes attending meetings at Owner / Consultant's offices (Project site / Chennai / Delhi / Bangalore) or at places decided by Owner as and when necessary for review, discussions, co-ordination, etc.
7.0	The scope of work also includes collection and transportation of materials supplied, <u>if any</u> , by the Owner / Purchaser from his stores located in the plant site.
8.0	The scope of work includes making all necessary arrangements for access to the storage yard from the nearest approach roads and further to the actual site of

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	work including dewatering, as necessary, and maintenance of the same in order to facilitate transportation of machinery and equipment such as cranes, etc. Refurbishment of existing access roads, if necessary, shall also be done by Contractor at no extra cost.
9.0	The scope of work also includes checking the adequacy and doing the appropriate modifications in some of the structures of the existing CHP for interconnection with the new CHP.
10.0	The scope of work shall include all other works not specifically mentioned above but necessary for the satisfactory completion of the project as a whole.
11.0	The Contractor shall be fully responsible for arranging all materials to meet the requirements of the project (except those supplied by the purchaser). Structural steel & reinforcement steel shall be procured only from SAIL/TISCO or approved equivalent.
12.0	STRUCTURE / BUILDING WISE SCOPE OF CIVIL& STRUCTURAL WORKS:
12.1	The structures / buildings required for the CHP are described in the Technical specifications of Volume-2. The plant layout and the flow diagram are also appended therein.
12.2	Detailed drawings viz., plant layout, flow diagrams, longitudinal profiles along the conveyor galleries, electro – mechanical and civil assignment GA (General Arrangement) drawings will be submitted and got approved by the plant equipment contractor and those drawings shall then be the design reference base drawings for the Civil & Structural contractor's detailed engineering.
12.3	Tentative basic dimensions for major structures / buildings of the CHP, are summarized in the tabular statement below for a quick ready reference.


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13.0 BASIC DIMENSIONS OF MAJOR STRUCTURES / BUILDINGS:-

SL. No.	ITEM	UNIT	QUANTITY	LENGTH IN M	WIDTH IN M	HEIGHT IN M	REFERAN CE
A	STACKER RECLAIMER						
1	STACKER & RECLAIMER FOUNDATION FOR CONVEYOR 32	LOT	1				
2	STACKER & RECLAIMER FOUNDATION FOR CONVEYOR 34	LOT	1				
B	CRUSHER HOUSE- STAIR BAY & GRAVITY TAKE UP UNIT TO BE CONSIDERED EXTRA						
1	PRIMARY CRUSHER HOUSE	LOT	1	35	18	32.5	
2	SECONDARY CRUSHER HOUSE	LOT	1	32	18	35	
C	JUNCTION TOWER – STAIR BAY & GRAVITY TAKE UP UNIT TO BE CONSIDERED EXTRA						
1	JUNCTION TOWER: 12	LOT	1	13	10	27	
2	JUNCTION TOWER: 13	LOT	1	14	12	70	
3	JUNCTION TOWER: 14	LOT	1	14	12	75	
4	JUNCTION TOWER: 15	LOT	1	12	12	79	
5	JUNCTION TOWER: 16	LOT	1	19.5	18	20	
6	JUNCTION TOWER: 17	LOT	1	15.5	11	17	
7	JUNCTION TOWER: 18	LOT	1	12	12	11.5	
8	JUNCTION TOWER: 19	LOT	1	15	10.5	16	
9	JUNCTION TOWER: 20	LOT	1	23.5	10.5	18.5	
10	JUNCTION TOWER: 21	LOT	1	12	9	12	
11	JUNCTION TOWER: 22	LOT	1	13	10	20	
12	MODIFICATION JUNCTION TOWER: JNT 5	LOT	1				
D	CONVEYOR						
1	CONVEYOR 13 B	LOT	1				
2	CONVEYOR 13 C	LOT	1				
3	CONVEYOR 26 A/B	LOT	1				
4	CONVEYOR 27 A/B	LOT	1				
6	CONVEYOR 28 A/B	LOT	1				
9	CONVEYOR 29 A/B	LOT	1				
10	CONVEYOR 30 A/B	LOT	1				
11	CONVEYOR 31	LOT	1				
12	CONVEYOR 32	LOT	1				
13	CONVEYOR 33 A/B	LOT	1				
14	CONVEYOR 34 A/B	LOT	1				
15	CONVEYOR 35	LOT	1				
16	CONVEYOR 36	LOT	1				


REFER TENDER
DRAWINGS

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17	CONVEYOR 37 A/B	LOT	1	REFER TENDER DRAWINGS		
18	CONVEYOR 38 A/B	LOT	1			
19	CONVEYOR 39 A/B	LOT	1			
20	CONVEYOR 40 A/B	LOT	1			
21	CONV 14 A/ B EXTN.	LOT	1			
E	UNDERGROUND TUNNELS					
1	U/G TUNNEL- CONV 35	LOT	1	55		
2	U/G TUNNEL- CONV 36	LOT	1	55		
3	U/G TUNNEL- CONV 13 B	LOT	1	60		
4	U/G TUNNEL- CONV 13 C	LOT	1	60		
F	EMERGENCY RECLAIM HOPPER(ERH 2)	LOT	1	8	8	-8
G	EMERGENCY RECLAIM HOPPER(ERH 3)	LOT	1	8	8	-8
H	WAGON TIPLER (WT4)-CIV & STR WORKS (Except WT Shed)	LOT	1			
I	WAGON TIPLER (WT5)-CIV & STR WORKS (Except WT Shed)	LOT	1			
J	PENT HOUSE					
1	PENT HOUSE 35	LOT	1	5.5	5	6
2	PENT HOUSE 36	LOT	1	5.5	5	6
3	PENT HOUSE 13 B	LOT	1	5.5	8.7	6
4	PENT HOUSE 13 C	LOT	1	5.5	8.7	6
K	CABLE RACK & TRESTLE/CABLE TRENCHES	LOT	1			
L	ROADS AND DRAINS					
1	ROADS & SHOULDERS – Bituminous Roads	LOT	1			
2	DRAINS	LOT	1			
M	DECANTATION TANK	LOT	1			
N	DRAINAGE SYSTEM IN THE COAL STOCK YARD AREA FOR CONV 32 & 34-FROM DECANTATION TANK TO COAL SETTLING POND	LOT	1			
O	COAL SETTLING POND	LOT	1			
P	MISSELANEOUS					
1	BULL DOZER SHED	LOT	1			
2	CIVIL WORKS FOR DUST EXTRACTION SYSTEM	LOT	1			

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3	CIVIL WORKS FOR YARD LIGHTING IN COAL STOCK AREA	LOT	1				
4	TOILETS AND SEWAGE SYSTEM	LOT	1				
5	CIVIL WORKS FOR LAYING PIPE LINE FOR DS/SW/DW/CW	LOT	1				
6	CIVIL WORKS FOR LAYING CABLE IN STOCK YARD AND OTHER AREAS	LOT	1				
7	DISMANTLING WORKS IF ANY AS PER SPECIFICATIONS	LOT	1				
8	CASTING OF RCC COUNTER WEIGHTS FOR CONVEYOR SYSTEM	LOT	1				
9	CASTING OF RCC COUNTER WEIGHTS FOR STACKER RECLAIMER	LOT	2				
10	BHEL-SITE OFFICE	LOT	1				
11	BHEL-COVERED STORE	LOT	1				
12	BHEL-OPEN STORE	LOT	1				
13	SITE LEVELLING AND GRADING AS REQUIRED AS SPECIFICATION	LOT	1				

Note The dimensions mentioned above are based on the tender drawings which are indicative and minimum. It may vary to any extent during detail engineering. Quoted price by the bidder shall cover for variation if any upto $\pm 15\%$ in the sizes.

14.0 TERMINAL POINTS:


Terminal points for the coal handling plant shall be as per attached NIT specifications, and clarifications of KPCL given in Volume-2.

16.0 LIST OF ENCLOSURES in Volume -2:

Following documents are an integral part of this tender:

1. KPCL BID SPECIFICATIONS
2. KPCL errata to bid specifications
3. KPCL pre-bid queries technical-critical
4. KPCL pre-bid queries technical-non critical
5. Tender drgs.
6. Geo-technical investigation report.

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Special Note : Bidder to note “**no deviation**” from the Errata to bid-specifications, pre-bid queries technical-critical and non critical in volume 2, shall be applicable unless and until written approval from customer KPCL/ BHEL has been accorded. Bidder shall submit a signed copy of BHEL’s tender documents as technical offer along with the technical bid without any deviations.

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