

TENDER SPECIFICATION BHEL PSSR SCT 2035

FOR

Structural steel works (i.e. transporting from BHEL store, fabrication, erection, alignment including blast cleaning & painting and other allied works) of Ash Handling Plant (AHP), Lime Handling Plant (LHP) & Gypsum Handling Plant (GHP) at 5x800 MW Yadadri Power project, Veerlapalem village, Dameracherla Mandal, Nalgonda District., Telangana state.

PRICE BID

VOLUME –II



BHARAT HEAVY ELECTRICALS LIMITED

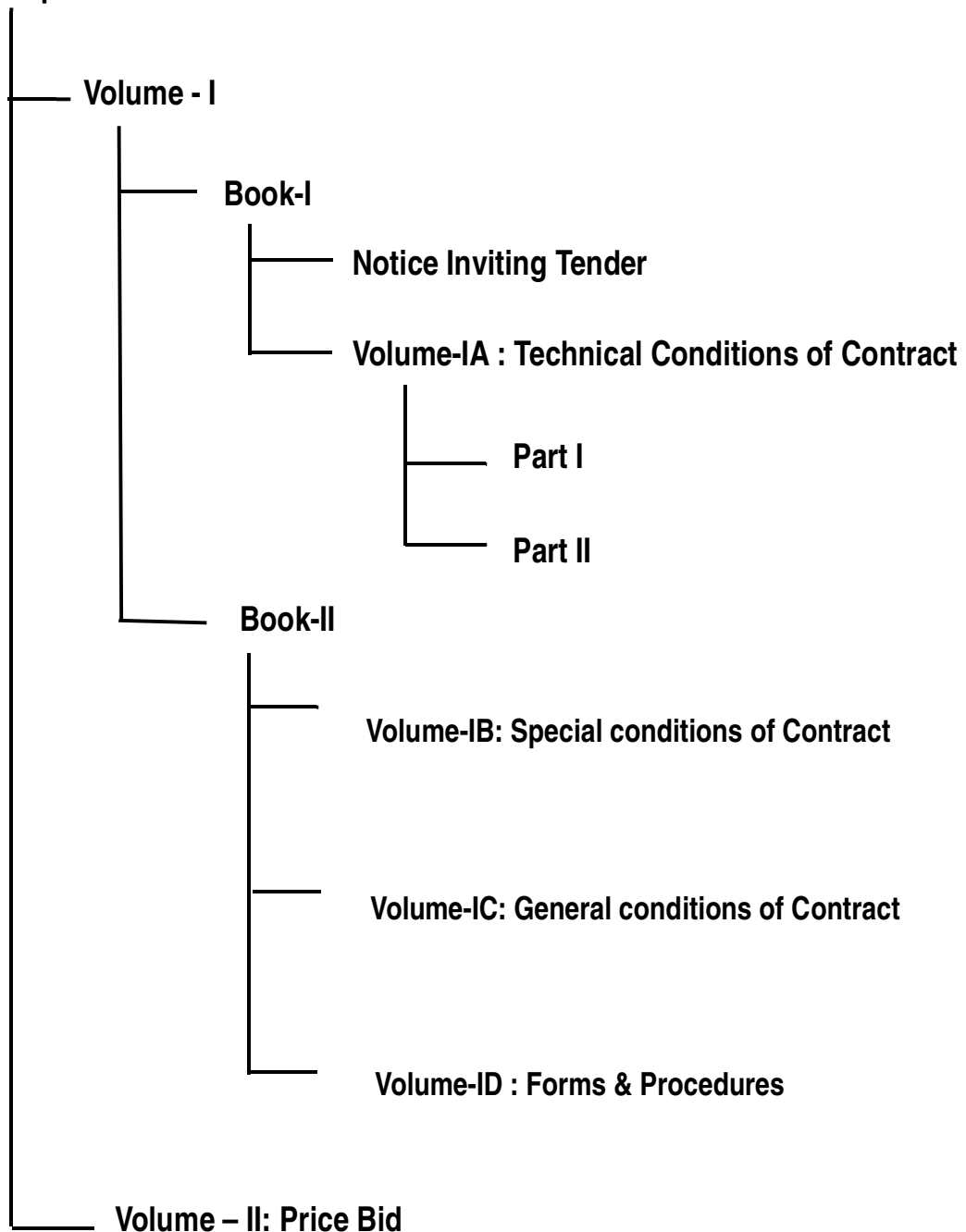
(A Government of India Undertaking)

Power Sector – Southern Region

690, Anna Salai, Nandanam, Chennai – 600 035

TENDER SPECIFICATION CONSISTS OF

Tender Specification



PRICE BID

CONTENTS	
Description	No. of pages
Part A : Instructions to the Bidders	01
Part B : Format for total amount (Enclosed as a separate Excel File in BHEL NIC e-Procurement portal for the subject tender)	(Separate Excel File)
Part C: Bill of quantities with weightage for amount of each items with respect to the total quoted price	11

PART A

Instruction to Bidders:

1. The quantity indicated in the BOQ / Price bid (Part C) is approximate only and is liable for variation. Payment will be as per actual quantity executed as certified by BHEL Engineer.
2. Tenderers are requested to affix their company seal and authorized signature in all pages.
3. Bidders shall quote 'Total Amount' in the format enclosed as a separate Excel File in BHEL NIC e-Procurement portal for the subject tender and upload the same under 'Packet details - > Tender covers -> Finance '(Cover Type Description – Price Bid)" and same shall be taken into account for evaluation and awarding and hence, shall be complete in all respect for the full scope of work defined in specification and in accordance with terms & conditions of the tender. Any other entry elsewhere in the price bid shall be treated as Null and Void. Quoting of rates in any other form/ formats will not be entertained.
4. The above mentioned 'Total amount' is for the entire Bill of Quantity (BOQ) given in Part -C of the Price Bid.
5. BHEL has pre-fixed the weightages for the amount of individual items of Bill of Quantity with respect to the 'Total Amount' in Part-C.
6. Based on the pre-fixed weightages, the amount for the individual items of the Bill of Quantity shall be arrived at. This amount shall be rounded off to the nearest rupee.
7. Based on the quantities of individual item and the amount arrived in SI No: 6 above, unit rate of individual items shall be derived. This unit rate shall be rounded off to four decimal places.
8. Bidders to note that this is an item rate contract. Payment shall be made for the actual quantities of work executed at the unit rate arrived at as per SI No.7 above.

Part C : Bill of Quantities

Tender Specification BHEL:PSSR:SCT:2035 for Subcontracting Indent for Structural steel works (i.e. transporting from BHEL store, fabrication, erection, alignment including blast cleaning & painting and other allied works) of Ash Handling Plant(AHP), Limestone Handling Plant(LHP) & Gypsum Handling Plant (GHP)

at 5 X 800 MW Yadadri TPS

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
800.0	GROUTING: Grouting including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, roughening surface, cleaning, ramming, curing etc. at all level , drawings and as directed by engineer - in - charge.	--		
803.0	Providing & grouting of pocket holes, pipe sleeves and under base plate of structural steel work/ machinery/ pipe supporting structures including roughening of surface, cleaning, ramming, curing etc. all complete with mix 1:1:2 (1 cement : 1 coarse sand : 2 aggregate of 6 mm down graded stonechips) using non shrink admixture as per specification, drawing and direction of engineer-in-charge. (Cost of all material and cleaning the pocket by compressed air shall be in the scope of the contractor).	CUM	2	.0000701
804.0	Providing & grouting of pocket holes, pipe sleeves and under base plates of structural steel work/ machinery/ pipe supporting structures including roughening of surface, cleaning, ramming, curing etc. all complete with ConbextraGP-1 or equivalent as per specification, drawing and direction of engineer-in-charge. (Cost of all material and cleaning of the pockets by compressed air shall be in the scope of the contractor).	CUM	55	.004579
805.0	Providing & grouting of pocket holes, pipe sleeves and under base plates of structural steel work/ machinery/ pipe supporting structures including roughening of surface, cleaning, ramming, curing, etc. all complete with Conbextra GP-2 or equivalent as per specification, drawing and direction of engineer-in-charge.(Cost of all material and cleaning of the pockets by compressed air shall be in the scope of the contractor).	CUM	2	.0002754
806.0	Providing Chemical (epoxy) injection grouting with pressure pump for water retaining concrete structures conforming to IS:6494, including fixing nozzles, cost of approved chemical, admixture, curing etc. all complete . Payment shall be made as per the consumption of chemical grout.	KG	70	.0003115
900.0	DOORS & WINDOWS: Doors, windows, ventilators, louvers, roof ventilators, rolling shutters, partitions including all labour, material (unless otherwise specified in BOQ/contract specification), equipments, transportation, handling, preparation of working drawings etc. at all level as per specification, drawings and as directed by engineer - in - charge.	--		

Part C : Bill of Quantities

Tender Specification BHEL:PSSR:SCT:2035 for Subcontracting Indent for Structural steel works (i.e. transporting from BHEL store, fabrication, erection, alignment including blast cleaning & painting and other allied works) of Ash Handling Plant(AHP), Limestone Handling Plant(LHP) & Gypsum Handling Plant (GHP)

at 5 X 800 MW Yadadri TPS

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
904.0	Providing and fixing single or double steel door shutters with 45mm thk flush design shutter comprising of two outer sheets of 18 gauge steel sheets rigidly connected and reinforced inside with continuous vertical 20 gauge stiffeners, spot welded in position at not more than 150mm on centres including void filled with mineral wool (density as per specification), all fittings, Godrej or equivalent make mortice lock with handle on both sides, shop and final painting etc all complete.	SQM	100	.0019092
A904	Providing and fixing single or double leaf steel door shutters. Door leaf should be 46 mm thick fully flush double skin door with or without vision lite. Door leaf shall be manufactured from 0.8mm (22 gauge) minimum thick galvanised steel sheet rigidly connected and reinforced inside with continuous vertical 20 gauge stiffeners, spot welded in position at not more than 150mm on centres including void filled with mineral wool (density as per specification), all fittings, Godrej or equivalent make mortice lock with handle on both sides, aldrop, tower bolt, shop and final painting etc all complete.	SQM	50	.0009546
905.0	Providing and fixing single or double steel door shutters with 18 gauge M.S. sheets shutter presenting a flush surface on the outside and inside stiffened with semitubular edge and central stiffening rail which shall convey the lock including fixtures, Godrej or equivalent make mortice lock with handle on both sides, shop and final painting etc all complete.	SQM	25	.0004773
A905	Providing and fixing sliding door shutters (single or double) with 18 gauge M.S. sheets shutter presenting a flush surface on the outside and inside stiffened with semitubular edge and central stiffening rail which shall convey the lock including fixtures, handle on both sides, guide channels & sliding arrangement, shop and final painting etc all complete.	SQM	10	.0001909
908.0	Providing and fixing steel windows/ventilator with steel sections as per IS:1038, IS:1361 & IS:7452 latest revision including all fittings, metal beadings, hold fasts, shop and final painting ,glazing etc. all complete. (Glazing shall be paid separately)	--		
a	Openable type	SQM	1,000	.0066088

Part C : Bill of Quantities

Tender Specification BHEL:PSSR:SCT:2035 for Subcontracting Indent for Structural steel works (i.e. transporting from BHEL store, fabrication, erection, alignment including blast cleaning & painting and other allied works) of Ash Handling Plant(AHP), Limestone Handling Plant(LHP) & Gypsum Handling Plant (GHP)

at 5 X 800 MW Yadadri TPS

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
b	fixed type	SQM	450	.0024783
ISG 908	Providing and fixing steel windows/ventilator with steel sections with necessary framework as per approved drawings, The window shutters shall be provided with M.S Louvers and as per IS:1038, IS:1361 & IS:7452 latest revision, including all fittings, metal beadings, hold fasts, shop and final painting ,glazing etc. all complete. - louver blade shall be Z shaped and made out of 18G sheets in E27 steel frames all complete as per the directions of the Engineer in charge. Quoted rate shall be all inclusive.(Glazing shall be paid separately)	--		
a	Openable type	SQM	180	.0011896
b	fixed type	SQM	180	.0009188
A908	Providing and fixing M.S. grills in windows/ventilator as per approved design for security purpose made of M.S. Flats / M.S. square bar of approved design shall be provided to suit security requirements.	KG	40	.0000103
B908	Providing and fixing anodised aluminium Grills in windows/ventilator of approved design.	KG	40	.0000533
C908	Extra over Item 908 for providing pre-coated (polyster painted) steel windows/ventilators	SQM	18	.0000039
912.0	Providing and fixing pressed steel frames fabricated from 16 gauge M.S sheet mortised, reinforced drilled and tapped for hinges and locks bolts strikes, hold fasts adjustable floor anchors, floor tiles/weather bars ,paintings etc all complete as per specifications.	KG	50	.0000173
A912	Providing and fixing pressed steel door frames. Door frame shall be Single rebate profile of size 100 x 57 mm made out of 1.20 mm thick galvanised steel sheet (18 gauge) reinforced, drilled and tapped for hinges and locks bolts strikes, hold fasts adjustable floor anchors, floor tiles/weather bars, paintings etc all complete as per specifications.	KG	200	.0000682

Part C : Bill of Quantities

Tender Specification BHEL:PSSR:SCT:2035 for Subcontracting Indent for Structural steel works (i.e. transporting from BHEL store, fabrication, erection, alignment including blast cleaning & painting and other allied works) of Ash Handling Plant(AHP), Limestone Handling Plant(LHP) & Gypsum Handling Plant (GHP)

at 5 X 800 MW Yadadri TPS

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
B912	Providing and fixing pressed steel door frames for fire proof doors. Door frame shall be double rebate profile of size 143 x 57 mm made out of 1.60 mm (16 gauge) minimum thick galvanized steel sheet reinforced, drilled and tapped for hinges and locks bolts strikes, hold fasts adjustable floor anchors, floor tiles/weather bars, paintings etc all complete as per specifications.	KG	75	.0000261
913.0	Providing and fixing in position rolling shutter of hot rolled double dipped galvanised steel lath section of 18 SWG tested mild steel strips at 75mm rolling centres interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation including wire springs, top cover, primer & shop coats of approved enamel paint etc, all complete as per IS 6248 and specification of approved make of following types: The bottom lath shall be coupled to a lock plate fabricated from 3mm thick galvanised steel plate and securely rivetted with stiffening angles.(partly coiled and lath/full lath).	--		
b	Mechanically Operated	SQM	35	.0001806
c	Electrically operated	SQM	100	.001449
915.0	Providing, fixing and fitting of glazing of first grade class in steel/ aluminium/ wooden frames, where ever required, cleaning after fixing including hardware, gaskets, clips, beadings etc. all complete.	--		
d	6 mm thick wired glass	SQM	1,000	.0028034
918.0	Providing and fixing steel louvered window with ISMC 100 frame all round including verticals with 18G pressed steel louvers, painting etc. all complete.	SQM	500	.0023359
1500.0	ROOFING / SIDE CLADDING: Roofing / side cladding work including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, transportation, handling, scaffolding, laps, hooks, washers, corner pieces etc. at all level as per specification, drawings and as directed by engineer - in - charge.	--		

Part C : Bill of Quantities

Tender Specification BHEL:PSSR:SCT:2035 for Subcontracting Indent for Structural steel works (i.e. transporting from BHEL store, fabrication, erection, alignment including blast cleaning & painting and other allied works) of Ash Handling Plant(AHP), Limestone Handling Plant(LHP) & Gypsum Handling Plant (GHP)

at 5 X 800 MW Yadadri TPS

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
1505.0	Designing, providing, Erection and fixing profiled External Cladding sheet manufactured out of 0.55 mm TCT(Total Coated Thickness) of permanently colour coated zincalume steel (150gsm. zinc-aluminium alloy coating total of both sides as per AS 1397:1993) having 300MPa yield strength. The colour coating shall comprise of 20 microns finish coat over a 5 micron primer coat on the exposed side and a back coat of 5 micron over a primer coat of 5 micron on reverse side.The sheet shall have 500 mm cover width, 47mm height crests at 250mm centres with special male/female side laps and anti-siphoning features to prevent leakage. The sheet shall be fixed with the help of concealed compatible interlocking clips and wafer head zinc coated self drilling fasteners/screws 4.2 X 25mm long on to the sub-girts. The clips shall be concealed and no fasteners are to penetrate the external sheeting, all complete as per specification.	--		
a)	final painting with Silicon Modified Polyester(SMP)	SQM	22,500	.0649861
ISG1519	Providing and fixing polycarbonate translucent sheets, conforming to IS: 14443 for cladding / glazing / translucency purpose and shall have troughed profile to match with metal cladding profile. Sheet shall be minimum 2 mm thick fire retardant and UV resistant. Translucent sheet shall be installed along with metal cladding so as to have a water tight lapping. The sheets shall have min 80% translucency.	SQM	2,500	.0100355
1700.0	RAIN WATER DOWN TAKE PIPES: Rain water down take pipes at all level including all labour, material (unless otherwise specified in BOQ/contract specification), transportation, 2 coats of approved paint over one primary coat, fixtures, accessories etc as per specification, drawings and as directed by engineer - in - charge.	--		
1707.0	Providing and fixing GI down take pipes conforming to IS:1239 /IS:3589 of medium duty all complete for following diameters.	--		
b	150 mm Dia	RM	240	.0007437

Part C : Bill of Quantities

Tender Specification BHEL:PSSR:SCT:2035 for Subcontracting Indent for Structural steel works (i.e. transporting from BHEL store, fabrication, erection, alignment including blast cleaning & painting and other allied works) of Ash Handling Plant(AHP), Limestone Handling Plant(LHP) & Gypsum Handling Plant (GHP)

at 5 X 800 MW Yadadri TPS

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
1800.0	MISCELLANEOUS: Miscellaneous works including all labour, material (unless otherwise specified in BOQ/contract specification), equipment etc. at all level unless otherwise specified as per specification, drawings and as directed by engineer - in - charge.	--		
A1842	Marking, lettering on floor/ walls with synthetic enamel paint of design & size as per customers instruction, scope incl. cost of material, labour, scaffolding at all heights & all tools, etc. Method of measurement:area of each letter shall be measured equivalent to area of rectangle with sides equal to the letters width and height.	SQM	5	.0003716
2300.0	STRUCTURAL WORKS: Structural steel works including all labour, material (unless otherwise specified in BOQ/contract specification), equipments unless otherwise specified, transportation, handling etc. at all level as per specification, drawings and as directed by engineer - in - charge.	--		

Part C : Bill of Quantities

Tender Specification BHEL:PSSR:SCT:2035 for Subcontracting Indent for Structural steel works (i.e. transporting from BHEL store, fabrication, erection, alignment including blast cleaning & painting and other allied works) of Ash Handling Plant(AHP), Limestone Handling Plant(LHP) & Gypsum Handling Plant (GHP)

at 5 X 800 MW Yadadri TPS

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
2301.0	Fabrication,erection and alignment of structural steel with mild steel rolled section / built up section / combination of both conforming to IS:2062, pipes conforming to IS:1161/ IS:1239, chequered plate conforming to IS: 3052, mild steel rounds/sag rods, monorails, stays, safety chains, ladders, MS grating(For hoppers) etc. in columns, beams, gantry girders, bunkers, silos, hoppers, roof trusses, portals, laced purlins, space frames, 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, steel frame grid over false ceiling, walkway platforms, ladders, stairs, stringers, treads, landings, hand-rails etc., connection design & preparation of fabrication drgs, collection of steel from stores, fabrication, straightening, cutting, bending, rolling, grinding, machining, drilling, threadingwelding, electrodes and other consumables, alignment, erection bolts & nuts (weight of erection bolts, nuts and welds not payable), assembly, edge preparation, preheating (min preheat and interpass temperature of 20degree Celcius for welding over 20 mm and upto 40 mm & 66 deree Celcius for welding over 40 mm and upto 63 mm & 110 degree Celcius for thickness over 63 mm) & use of low hydrogen electrodes for welding of steel (for all thickness), 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, setting column bases, rectification, dismantling and removal of all temporary structures (weight of temporary structures not payable), return of surplus / waste steel materials to store etc all complete. Including appointment of a seperate agency, approved by BHEL, for review and approval of fabrication drgs, in consultation with BHEL (BHEL to supply steel free of cost). Electrode E-6013 is not allowed for Fabrctation & Erection works.	MT	11,525	.5241533
S2301	Supply including delivery at site, structural steel with mild steel rolled sections, conforming to IS:2062, pipes conforming to IS:1161/ IS:1239, chequered plate conforming to IS: 3052, etc. complete all as per specifications, drawings and as directed by Engineer.Note - This item shall be operated if required, at the discretion of BHEL.	MT	45	.0054776

Part C : Bill of Quantities

Tender Specification BHEL:PSSR:SCT:2035 for Subcontracting Indent for Structural steel works (i.e. transporting from BHEL store, fabrication, erection, alignment including blast cleaning & painting and other allied works) of Ash Handling Plant(AHP), Limestone Handling Plant(LHP) & Gypsum Handling Plant (GHP)

at 5 X 800 MW Yadadri TPS

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A2302	Extra over ST NO. 2301 for surface preparation by Blast cleaning of steel structures as per specification, providing and applying epoxy resin based zinc rich primer as per IS 14589 in two coats of minimum 25 micron (DFT) at shop and 25 micron (DFT) after erection, including touch- up painting etc all complete.	MT	11,480	.1095879
2304.0	Extra over ST No. 2301/2302 for providing and applying two coats of synthetic enamel paint with minimum 50 micron total dry film thickness (DFT) of approved make and shade to achieve an even shade over steel sections already having primer coats and keeping overall DFT with primer not less than 110 microns including protection and cleaning, scaffolding etc. all complete.	MT	6	.0000308
A2305	Providing and applying two coats of high built epoxy finish of 90 micron each over two primer coats of zincsilicate 50 micron each including protection and cleaning, scaffolding etc. all complete.	MT	10	.0000864
ISG 2305	Providing and applying two or more coats of epoxy paint over primer coat so achieve an even shade over steel sections already having primer coats and keeping overall DFT with primer not less than 110 microns including protection and cleaning, scaffolding etc. all complete.	MT	11,480	.10172
2306.0	Providing, laying and clamping of crane rails over the crane girder at all elevations as per IS 3443 including all fixtures, clamps, testings etc. all complete as per drawing and specification.	MT	4	.0009164
2307.0	Supplying, fabrication, erection and alignment of factory made electroforged galvanised grating units with mild steel having minimum galvanisation conforming to IS:2062 in flooring, platforms, drain and trench covers, walk-ways, passages, staircases with edge binding strips and anti-skid nosing in treads etc. including fixing clamps, fittings, fixtures, all taxes, duties, packing, grinding, drilling, welding, edge preparation, etc. all complete.	--		
a	Minimum galvanisation of 610 g/sqm	MT	630	.1202794

Part C : Bill of Quantities

Tender Specification BHEL:PSSR:SCT:2035 for Subcontracting Indent for Structural steel works (i.e. transporting from BHEL store, fabrication, erection, alignment including blast cleaning & painting and other allied works) of Ash Handling Plant(AHP), Limestone Handling Plant(LHP) & Gypsum Handling Plant (GHP)

at 5 X 800 MW Yadadri TPS

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
2308.0	Supplying, fabrication, erection and alignment of factory made galvanised welded grating units with mild steel conforming to IS:2062 in flooring, platforms, drain and trench covers, walk-ways, passages, staircases with edge binding strips and anti-skid nosing in treads etc. including 2 coats of redoxide zinc-chromate primer 25 micron each coat (one coat at shop and one coat after erection), fixing clamps, fittings, fixtures, all taxes, duties, packing, grinding, drilling, welding, edge preparation, etc. all complete.	MT	4	.0007343
2309.0	Extra over above ST NO. 2301 for finishing the grating units/bolts/inserts with hot dipped galvanisation @ 610 gm/sqm over blast cleaned steel surfaces all complete.	MT	2	.0000837
2310.0	Extra over above ST NO. 2301 for finishing the grating units/bolts/inserts with Cold galvanisation @ 610 gm/sqm over blast cleaned steel surfaces all complete.	MT	2	.0000551
A2310	Extra over above ST NO. 2308 for finishing the grating units/bolts/inserts with Cold galvanisation @ 610 gm/sqm over blast cleaned steel surfaces instead of painting with two coats of primer all complete.	MT	2	.00005
2311.0	Providing 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 etc all complete.	KG	250	.0000551
2312.0	Providing 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 etc all complete.	KG	500	.0001142
2313.0	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, scaffolding, staging, tools & tackles, gas cutting, welding, consumables etc all complete.	MT	25	.0003969

Part C : Bill of Quantities

Tender Specification BHEL:PSSR:SCT:2035 for Subcontracting Indent for Structural steel works (i.e. transporting from BHEL store, fabrication, erection, alignment including blast cleaning & painting and other allied works) of Ash Handling Plant(AHP), Limestone Handling Plant(LHP) & Gypsum Handling Plant (GHP)

at 5 X 800 MW Yadadri TPS

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
2314.0	Extra over item no. 2301, for alterations in and/or modification of 'Erection Marks' including cutting of parts, gauging 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, etc all complete for the following and as instructed by engineer in charge.	--		
a	In erected position	MT	25	.0010166
b	In fabrication yard	MT	25	.0008401
2315.0	Re-erection of dismantled fabricated structural steel members 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, scaffolding, staging, tools & tackles, gas cutting, welding, consumables etc all complete.	MT	25	.0006456
A2318	Providing and fixing in position PTFE type sliding bearings of reputed manufacturer, individual bearing suitable for required vertical loads as per the construction drawings and for maximum displacement of ± 150 mm including transportation, installation, drilling, bolting, erecting, aligning etc all complete for following vertical loads.	--		
f	100 Tons	EACH	2	.0001273
g-ISG	150 Tons	EACH	2	.0001322
2322.0	Supply, fabrication and fixing of GI pipe hand railing of 32 mm/40 mm dia (Heavy Grade) including transportation, loading/unloading, painting etc. all complete specification including galvanising of 610 g/sqm.	MT	155	.0295925

Part C : Bill of Quantities

Tender Specification BHEL:PSSR:SCT:2035 for Subcontracting Indent for Structural steel works (i.e. transporting from BHEL store, fabrication, erection, alignment including blast cleaning & painting and other allied works) of Ash Handling Plant(AHP), Limestone Handling Plant(LHP) & Gypsum Handling Plant (GHP)

at 5 X 800 MW Yadadri TPS

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
2323.0	Conducting radiography test on welds wherever specified by deploying necessary equipments, measuring devices, gauges, test report etc. all complete.	RM	50	.0000774
2324.0	Conducting ultasonic test on welds wherever specified by deploying necessary equipments, measuring devices, gauges, test report etc. all complete.	RM	50	.0000698
2325.0	Conducting ultasonic test on steel plates as per ASTM-A435 or equivalent wherever specified by deploying necessary equipments, measuring devices, gauges, test report etc. all complete.	SQM	250	.0001587
2326.0	Conducting magnetic particle test on welds wherever specified by deploying necessary equipments, measuring devices, gauges, test report etc. all complete.	RM	250	.0002945
2327.0	Conducting dye penetration test on welds wherever specified by the engineer including provision of necessary equipments, measuring devices, gauges etc. all complete (over and above the work already specified in the specifications.)	RM	250	.0002558
TOTAL Weightage				1.0