

(LP PIPING WORKS FOR 2 X 250 MW, KORBA THERMAL POWER PLANT, CHHATISHGARH)

S.N	CLAUSE REF NO. OF TENDER DOCUMENT NO. PSER:SCT:KBA-M657:06	DESCRIPTION OF EXISTING CLAUSE OF TENDER	AMMENDED DESCRIPTION OF CLAUSE
1	Page no. 13 of 43, clause no. 8.1.24 of vol-ID	Hanger and support / anchors / restraints, stubs for drains / vents/ welded type thermowells, welding pressure connection, sockets, rain hood, cowls, aux. Structures for pipe supports etc. for piping will be issued free as loose items. Erection, welding, painting etc of these items as per BHEL drawing is in the scope of contractor and payment for these items shall be made as per applicable item of Rate schedule.	Erection, welding, painting etc. of supports / anchors / restraints, stubs for drains / vents / welded type thermo-wells, welding pressure connection, sockets, rain hood, cowls, aux. structures for pipe supports etc. for piping as per BHEL drawing is in the scope of contractor and payment for these items shall be made as per applicable item of Rate schedule.

General points

1. It is once again clarified that the details of BHEL supplied pipes (only straight pipes) shall be as per DOC. No:- PE-DC-214-100-M003 (REV 0, 4 SHEETS) of original tender Vol-II comprising of Five systems namely ACW, CW, RAW WATER, CW BLOW-DOWN & CLARIFIED WATER Systems. Straight Pipes (pipe sizes indicated in this BOM) in required running lengths shall be supplied by BHEL on free of cost basis to contractor. Contractor shall take delivery of these items from BHEL stores in plant premises and these pipes shall be used specifically, in the systems envisaged in the bill of materials and also for fabrication of mitre bends, tees, reducers as per s. no. 6 of revised services BOQ (Mechanical portion) as per BHEL instructions.

Detailed System-wise material reconciliation, (separately for BHEL supplied & contractor supplied materials) shall be done after completion of works at site. All surplus materials (cut pieces/ full length pipes) / plates shall be returned by contractor to BHEL stores. While doing material reconciliation of pipes, 2 % shall be allowed as invisible wastages. Cut pieces of all lengths shall be acceptable, provided work has been carried out as per BHEL's instructions/ drawings.

2. Erection / services portion of contractor's scope of work shall comprise of Contractor supplied materials + BHEL supplied free issue pipes, valves and items as envisaged in tender to make the system complete in all respects. Payment shall be done as per BOQ cum rate schedule-services portion.

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3. It is clarified that, BHEL shall not provide any material (pipes/plates) for making tees/reducers/flanges/any fittings appearing in supply BOQ. Supply of all such items are inclusive of raw materials by bidders. Erection of such materials/ fittings is covered in s. no. 1, 2, 3 & 4 of services/ erection BOQ.
 4. Korba project is being dealt under clause no. 8.2 (g) of Govt. Of India Foreign Trade policy. Deemed export benefits (towards taxes/duties of this tender) will be available as per this Govt. Policy. It is further clarified that, this project was finalized by customer by International Competitive Bidding. This project is not a mega project. Benefits as per para 8.3 (a) & (b) of the foreign trade policy is available.
 5. Material of all the flanges coming under system of Stainless steel piping shall be stainless steel.
- These clarifications (TCN-02) will form a part of the tender document and should be submitted (duly signed) along with bid as specified. Quoted price of bidders will be presumed on the basis of original tender (including TCN-01) & these clarifications (TCN-02). These clarifications (TCN-02) including all enclosures mentioned below will form a part of the tender document and should be submitted (duly signed) along with bid as specified. **Price shall be quoted in revised BOQ (vol-III), revision-2 only. Revision-02 of Vol-III (BOQ cum rate schedule, supply as well services portion) is enclosed.** This BOQ supersedes earlier BOQ issued along with tcn-01 dated 06/04/2006.
 - Based on the request of bidders, submission due date is extended up to 24/04/2006 (15:00 Hrs.). Technical bid shall be opened on next working day.
 - Based on clarifications furnished above, all the bidders are requested to submit their offer without any deviation, within stipulated time i.e. by **24-04-2006 (Receipt date)**. No further queries/clarifications from bidders against this tender, shall be entertained.
 - **All the clauses of original tender document (including TCN-01 dated 06/04/2006), which are not mentioned/covered in above clarifications (TCN-02), will remain unchanged. All other queries raised by bidders shall not be taken into consideration.**

ENCLOSURE : 1. Revision-02 of BOQ cum rate schedule (Vol-III) comprising of supply portion and services portion.

**(MANAGER/SCT)
BHEL/PSERHQ/KOLKATA**

TENDER DOCUMENT NO - PSER:SCT:KBA-M657:06

VOLUME - III (SUPPLY PORTION), Rev-02

BOQ CUM SCHEDULE OF RATES

**SUPPLY OF LP PIPING PACKAGE MATERIALS OF KORBA
(EAST) 2 x 250 MW PROJECT [Unit-I & II] , Korba,
Chhatishgarh
AT**

2 X 250 MW KORBA (EAST) TPP UNITS – 1 & 2

**BHARAT HEAVY ELECTRICALS LIMITED
(A Govt Of India Undertaking)
POWER SECTOR – EASTERN REGION
PLOT – DJ 9/1, SECTOR II, SALT LAKE
KOLKATA – 700 091**

SUPPLY OF LP PIPING PACKAGE OF KORBA (EAST) 2 x 250 MW PROJECT [
Unit-I & II] , Korba, Chhatishgarh

TENDER DOCUMENT NO: PSER:SCT:KBA -M657:06

BOQ CUM SCHEDULE OF RATES

VOLUME – III (SUPPLY PORTION), Rev-02

PREAMBLE

- 1 This preamble forms part of tender document and schedule of items. The tenderer should read this preamble carefully in rates for various items. Clauses under this preamble shall be read in conjunction with Volume-IA, Volume- IC and Volume – II, **TCN-02** and other tender sections as applicable.
- 2 The work shall be carried out strictly as per specifications, description of the items in these schedule and / or engineer's instructions. Drawings enclosed with this document are only preliminary for giving some idea of work involved.
- 3 Items of work provided in this schedule but not covered in this specification shall be executed strictly as per instruction of the engineer.
- 4 The final payment shall be on the basis of actual quantity supplied and all payment shall be made on the basis of unit rates. The unit rate for similar group of material shall be same in all places of boq/supply rate schedule.
- 5 The quantity of individual system may vary to any extent. In case of any positive and negative variation in quantities, the price shall be adjusted based on unit rates. The unit rate price quoted by the bidder shall be valid for price adjustment due to any variation in quantities in a particular system so long as the consequential variation in total contract value remains within thirty percent ($\pm 30\%$) of the awarded price, supply portion, as per LOI. The unit rate price shall be firm, .
- 6 The rebate, if any offered by the bidder shall apply to all unit rate prices and unit rate prices quoted by the bidder shall be reduced proportionately
- 7 The unit rate given in break-up price schedule for supply, should include the price for all items/activities such as cleaning, painting (internal and external) etc. and no separate payment shall be made.
- 8 Rates shall be quoted in figures and in words in clear legible writing. No overwriting is allowed. All scoring and cancellations should be countersigned and in case of illegibility the interpretation of engineer shall be final. All entries shall be in English language.
- 9 All works item wise shall be measured upon completion and paid for at the rates quoted and accepted as per BHEL approved payment schedule/billing break-up.
- 10 The tender shall be deemed to have visited site and made himself aware of all the site conditions, studied the specifications and details of work to be done within the time schedule attached and to have acquainted himself of the conditions prevailing at site.

11	No splitting of the job is envisaged. Decision of BHEL in this regard shall be final and binding to the bidders.
12	Engineer's decision shall be final and binding on the contractor regarding clarification of items in the schedule with respect to the other sections/volumes of the contract.
13	
	Note : Bidders to note the following for quoting their rates.
	1) Only authorised persons of bidder having power should sign in the price bid. All the pages must be signed.
	2) For bid evaluation purpose (deciding L1), grand total price for supply, erection / services (civil and mechanical BOQs) shall be considered. Price/rates of optional items shall not be considered for evaluation purpose. However bidders must quote for all the optional items.
	3) Taxes/ duties shall be as per tender terms.

KORBA (EAST) TPS UNIT-1 & 2 (2x250 MW)		
L P PIPING (SMALL DIAMETER PORTION)		
VOL-III (SUMMARY PRICE FORMAT)		
	TENDER NO. PSER:SCT:KBA-M657:06	Rev-02
(PRICE FORMAT FOR SUPPLY AND ERECTION & COMMISSIONING)		
1	Total price for for Equipment & Services as specified, comprising of making fabrication drawings, manufacturing, inspection and testing, painting, supply/delivery duly packed at project site including freight , unloading, storage and handling at site, erection (including civil works) and commissioning, trial run and PG test at site, and handing over to the customer in line with approved drawings/ documents/ test procedures, inclusive of all prevailing taxes(except service tax), duties and other levies for 'LP Piping System' complete with all accessories including commissioning spares as required, for the total scope defined as per technical specification for 2x250 Korba Unit#1&2 project as detailed in tender specification no. PSER:SCT:KBA-M657:06 and TCN-01.	<p>RS (In figure)</p> <p>Rupees(in words)</p>
	Notes:	
a	Any item as per scope of work if not included in the price quoted above and shown separately will not be taken cognizance of and the offer shall be liable for rejection. Bidder to note that total price indicated above at 1.0 shall be considered for evaluation and hence should be complete in all respect for the full scope defined and considering all terms and conditions.	
b	Price indicated above should match with the total of item wise break-up given at clause 1.0 of supply portion and grand total price of civil and mechanical items/BOQ-Services. In case it doesn't match, the highest price so calculated shall be considered for evaluation but in case of order, the same shall be placed at the lowest price.	

<u>KORBA (EAST) TPS UNIT-1 & 2 (2x250 MW)</u>			
<u>L P PIPING (SMALL DIAMETER PORTION) SUPPLY PORTION</u>			
<u>VOL-III (PRICE FORMAT FOR OPTIONAL ITEMS)</u>			
	TENDER NO. PSER:SCT:KBA-M657:06		VOLUME-III, Rev-02
S.No.	<u>DESCRIPTION</u>	Unit	Total Unit Price / Rate per unit (Rs.)
1	RADIOGRAPHY TEST	Per cm length of weld	
2	SPOT RADIOGRAPHY FOR TEE WELD JOINTS OF FABRICATED PIPE AND FITTINGS	Per Weld Joint	
3	SHOT BLASTING CLEANING (AT SITE)	Per Sq. Mtr of pipe surface	
4	SHOT BLASTING CLEANING (AT SHOP)	Per Sq. Mtr of pipe surface	
5	SUPPLY OF NUTS, BOLTS AND WASHERS	Per Kg. of Fasteners	
6	SUPPLY OF GASKETS 3MM THK FOR EACH SIZE OF FLANGE COVERING 15 NB TO 1600 NB SIZE	Per Gasket of each size	
7	MANUAL CLEANING	Per Sq. Mtr. of pipe surface	
8	SUPPLY AND APPLICATION OF PAINTS (OUTSIDE SURFACE) AS PER SPEC.	Per Sq. Mtr. of pipe surface	
9	SUPPLY AND APPLICATION OF PROTECTION PAINT (INSIDE SURFACE) AS PER SPECIFICATION	Per Sq. Mtr. of pipe surface	
	Notes:		
	THIS PRICE FORMAT IS PRICE FOR OPTIONAL ITEMS AND SHALL NOT BE CONSIDERED FOR EVALUATION OF BID. BHEL reserves the right to rationalise / match the rates of Overall L1 bidder, with respect to itemwise L1 rates (amongst the participating bidders) of optional items, before placement of order. Taxes, duties etc. shall be as per tender terms. In case of supply of items, rates should be on FOR site basis. Bidder should quote break up of prices (viz. basic price, freight, taxes etc.). Validity of these rates shall be till completion of contract period (including extension, if any).		

KORBA (EAST) TPS UNIT-1 & 2 (2x250 MW)													
L P PIPING (SMALL DIAMETER PORTION) SUPPLY PORTION													
<u>VOL-III (PRICE FORMAT FOR SUPPLY)</u>													
<u>REV-02</u>													
Clause No.	DESCRIPTION	UNIT Rate in Rs. (in figures and Word)							AMOUNT IN RUPEES				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
1.0	Total prices for items as specified in tender comprising of making of fabrication drawings, Fabrication, mfg., assembly, inspection & Testing at manufacturers works, Painting at manufactures works, duly packed for transportation, delivery to Korba site of complete L P Piping System as detailed in tender Specification no. PSER:SCT:KBA-M657:06 (COMPLETE SUPPLY PORTION) including all items for U#1&2 at Korba TPS, inclusive of all taxes, duties, freights & other charges .	1	LOT	<p style="text-align: center;">GRAND TOTAL AMOUNT FOR SUPPLY PORTION IN RUPEES</p> <p style="text-align: right;">Rs. _____/-</p> <p>Rupees _____.</p>									
Notes:													
a)	Bidder to note that total price indicated above at 1 shall be considered for evaluation and hence should be complete in all respect for the full scope defined and considering all terms and conditions.												
b)	Any item as per scope of work if not included in the price quoted above and shown separately will not be taken cognizance of and the offer shall be liable for rejection.												
c)	In case, price indicated above does not match with the total of item wise break-up given at 2.0, the highest price so calculated shall be considered for evaluation but in case of order, the same shall be placed at the lowest price.												
d)	Bidder has to quote Excise Duty only for Self manufactured items. For Bought out items, these should be included in the basic price and if quoted seperately will not be paid. Taxes, duties shall be as elaborated in volume-IC of tender document.												
2.0	Breakup prices for items covered in clause 1.0 above, for making of fabrication drawings, Fabrication, mfg., assembly, inspection & testing at manufacturers works & supply of following items (for two units at Korba TPS):- Bidders should also refer to bill of materials (part of volume-II of tender spec.)												
LP PIPING SYSTEM													

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
2.1	DM MAKEUP SYSTEM FROM DM PLANT TO CST UP TO COND. TRANSFER PUMP / BOILER FILL PUMP SUCTION ASTM A-312 Gr. TP 304 as per specificatins as specified.												
2.1.1	PIPE OD X THK												
1	273X4.19	60	Meters										
2	219.1X3.76	120	Meters										
3	168.3X3.4	2300	Meters										
4	114.3X3.05	120	Meters										
5	88.9X3.05	60	Meters										
6	60.3X3.91	80	Meters										
2.1.2	90 degree ELBOW(PIPE OD X THK)												
1	273X4.19	24	Nos										
2	219.1X3.76	16	Nos										
3	168.3X3.4	92	Nos										
4	114.3X3.05	16	Nos										
5	88.9X3.05	16	Nos										
6	60.3X3.91	24	Nos										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
2.1.3	TEEs (Refer BOM for pipe OD X THK)												
1	250X150	6	Nos										
2	200X100	4	Nos										
3	150EQ	12	Nos										
4	150X100	4	Nos										
5	80X65	6	Nos										
6	50 EQ	8	Nos										
2.1.4	Reducers (Refer BOM for pipe OD X THK)												
1	150X100	6	Nos										
2	100 x 80	6	Nos										
2.1.5	COUNTER FLANGES FOR VALVES												
1	80 NB	104	Nos										
2	100 NB	168	Nos										
3	150 NB	80	Nos										
4	200 NB	24	Nos										
2.1.6	BLANK FLANGES												

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
1	250 NB	4	Nos										
2	150 NB	4	Nos										
2.1.7	ORIFICE PLATES												
1	80 NB	4	Nos										
2	100 NB	4	Nos										
2.2	FROM CONDENSATE TRANSFER PUMP DISCH,DM SERVICE WATER PUMP DISCH TO DEAERATOR FILLING,BOILER FILLING, CONDENSER EMERGENCY MAKE UP, GRAVITY MAKE UP ETC												
2.2.1	PIPE SIZE 219.1X3.76 (ASTM A-312 Gr TP 304)												
1	PIPE	800	Meters										
2	ELBOW 200 NB	70	Nos.										
3	Reducer, 200 / 150	32	Nos.										
4	TEE 200 EQ	32	Nos.										
5	Flange 200 NB	24	Nos.										
2.2.2	PIPE SIZE 168.3 X 3.4 (ASTM A-312 Gr TP 304)												
1	PIPE	1000	Meters										
2	ELBOW 150 NB	100	Nos.										
3	Reducer, 150 / 80	32	Nos.										
4	TEE 150 EQ	32	Nos.										
5	Flange 150 NB	8	Nos.										
2.2.3	PIPE SIZE 114.3 X 3.05 (ASTM A-312 GR304)												

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
1	PIPE	1520	Meters										
2	ELBOW 100 NB	168	Nos.										
3	Reducer, 100 / 80	12	Nos.										
4	Reducer, 100 / 65	4	Nos.										
5	TEE 100 EQ	28	Nos.										
6	TEE 100/80	12	Nos.										
7	Flange 100 NB	120	Nos.										
8	ORIFICE PLATES	8	Nos.										
2.2.4	PIPE SIZE 114.3 X 3.05(ASTM A 312 GR304)												
1	PIPE	600	Meters										
2	ELBOW 100 NB	128	Nos.										
3	TEE 100 EQ	12	Nos.										
4	FLANGE 100 NB	112	Nos.										
2.2.5	PIPE size 88.9 X 3.05 (ASTM A 312 GR 304)												
1	PIPE	6	Meters										
2	FLANGE 160 NB	12	Nos.										
2.2.6	PIPE SIZE 168.3 X 3.4 (ASTM A 312 GR 304)												
1	PIPE	480	Meters										
2	ELBOW 150 NB	36	Nos.										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
3	Reducer, 150 /100	16	Nos.										
4	TEE 150 EQ	8	Nos.										
5	TEE 150/ 100 NB	12	Nos.										
6	Flange 150 NB	12	Nos.										
2.2.7	PIPE size 33.4 X 3.38(ASTM A 312 GR 304)												
1	PIPE	800	Meters										
2	ELBOW 25 NB	160	Nos.										
3	TEE 25EQ	80	Nos.										
2.2.8	PIPE SIZE 48.3 X 3.68 (ASTM A 312 GR 304)												
1	PIPE	280	Meters										
2	ELBOW 40 NB	40	Nos.										
3	Reducer, 40/25	40	Nos.										
4	TEE 40 EQ	24	Nos.										
2.2.9	PIPE SIZE 60.3 X 3.91 (ASTM A 312 GR 304)												
1	PIPE	240	Meters										
2	ELBOW 50 NB	40	Nos.										
2.3	DRINKING WATER SYSTEM MATERIAL : IS 1239 (I) HEAVY, GALVANISED												
2.3.1	PIPE SIZE (OD 21.8 MM X THICK 3.2 MM)												

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	PIPE	100	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	45	Nos.										
2.3.2	PIPE SIZE (OD 34.2 MM X THICK 4.0 MM)												
	PIPE	230	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	25	Nos.										
	25 EQ TEES	10	Nos.										
2.3.3	PIPE SIZE (OD 48.8 MM X THICK 4.0 MM)												
	PIPE	225	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	10	Nos.										
2.3.4	PIPE SIZE (OD 60.8 MM X THICK 4.5 MM)												
	PIPE	300	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	30	Nos.										
	REDUCER, 50/25	3	Nos.										
	TEE 50 EQ	2	Nos.										
	TEE 50 X 25	8	Nos.										
	TEE 50 X 40	1	Nos.										
2.3.5	PIPE SIZE (OD 76.6 MM X THICK 4.5 MM)												
	PIPE	20	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	7	Nos.										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	TEE 65 X 40	2	Nos.										
	FLANGE PN 10	10	Nos.										
2.3.6	PIPE SIZE (OD 89.5 MM X THICK 4.8 MM)												
	PIPE	1400	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	60	Nos.										
	REDUCER 80 X 50	2	Nos.										
	TEE 80 X 80	12	Nos.										
	FLANGE PN 10	125	Nos.										
2.3.7	PIPE SIZE (OD 115.0 MM X THICK 5.4 MM)												
	PIPE	1700	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	60	Nos.										
	ELBOW (RAD./ ANG. : 1.5D/45)	10	Nos.										
	ELBOW (RAD./ ANG. : 1.5D/30)	6	Nos.										
	REDUCER 100 X 50	10	Nos.										
	TEE 100 X 50	10	Nos.										
	TEE 100 X 100	10	Nos.										
	FLANGE PN 10	700	Nos.										
2.3.8	PIPE SIZE (OD 166.5 MM X THICK 5.4 MM)												
	PIPE	300	Meters										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	ELBOW (RAD./ ANG. : 1.5D/90)	20	Nos.										
	ELBOW (RAD./ ANG. : 1.5D/45)	2	Nos.										
	ELBOW (RAD./ ANG. : 1.5D/30)	1	Nos.										
	REDUCER 150 X 100	2	Nos.										
	REDUCER 150 X 80	2	Nos.										
	TEE 150 X 80	2	Nos.										
	TEE 150 X 150	2	Nos.										
	FLANGE PN 10	120	Nos.										
2.4	SERVICE WATER (MATERIAL : IS 1239 HEAVY ERW UP TO & INCLUDING 150 NB , IS 3589 ROLLED & WELDED PLATES CONFORMING TO IS 2062 ABOVE 150 NB)												
2.4.1	PIPE SIZE (OD 21.8 MM X THICK 3.2 MM)												
	PIPE	35	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	10	Nos.										
	SOCKETS 15 NB	10	Nos.										
2.4.2	PIPE SIZE (OD 34.2 MM X THICK 4.0 MM)												
	PIPE	320	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	45	Nos.										
	SOCKETS 25 NB	80	Nos.										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
2.4.3	PIPE SIZE (OD 48.8 MM X THICK 4.0 MM)												
	PIPE	350	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	25	Nos.										
	REDUCER, 40/25	2	Nos.										
	TEE 40 X 40	2	Nos.										
	TEE 40 X 25	4	Nos.										
	SOCKETS 40 NB	70	Nos.										
2.4.4	PIPE SIZE (OD 60.8 MM X THICK 4.5 MM)												
	PIPE	500	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	32	Nos.										
	REDUCER, 50/25	25	Nos.										
	TEE 50 EQ	5	Nos.										
	TEE 50 X 25	25	Nos.										
	SOCKET 50 NB	125	Nos.										
2.4.5	PIPE SIZE (OD 76.6 MM X THICK 4.5 MM)												
	PIPE	130	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	10	Nos.										
	REDUCER 65 X 40	2	Nos.										
	REDUCER 65 X 50	2	Nos.										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	TEE 65 X 65	4	Nos.										
	TEE 65 X 50	4	Nos.										
	TEE 65 X 40	5	Nos.										
	FLANGE PN 10	10	Nos.										
2.4.6	PIPE SIZE (OD 89.5 MM X THICK 4.8 MM)												
	PIPE	175	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	20	Nos.										
	REDUCER 80 X 50	4	Nos.										
	TEE 80 X 50	2	Nos.										
	FLANGE PN 10	25	Nos.										
2.4.7	PIPE SIZE (OD 115.0 MM X THICK 5.4 MM)												
	PIPE	150	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	15	Nos.										
	REDUCER 100 X 40	2	Nos.										
	TEE 100 X 80	1	Nos.										
	TEE 100 X 50	1	Nos.										
	FLANGE PN 10	20	Nos.										
2.4.8	PIPE SIZE (OD 166.5 MM X THICK 5.4 MM)												
	PIPE	1000	Meters										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	ELBOW (RAD./ ANG. : 1.5D/90)	75	Nos.										
	ELBOW (RAD./ ANG. : 1.5D/45)	12	Nos.										
	ELBOW (RAD./ ANG. : 1.5D/30)	2	Nos.										
	REDUCER 150 X 100	3	Nos.										
	REDUCER 150 X 80	1	Nos.										
	TEE 150 X 80	4	Nos.										
	TEE 150 X 150	8	Nos.										
	TEE 150 X 100	1	Nos.										
	TEE 150 X 65	1	Nos.										
	FLANGE PN 10	30	Nos.										
	BLIND FLANGE	1	Nos.										
2.4.9	PIPE SIZE (OD 219.1 MM X THICK 6.0 MM)												
	PIPE	560	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	10	Nos.										
	FLANGE PN 10	8	Nos.										
2.4.10	PIPE SIZE (OD 273.0 MM X THICK 6.0 MM)												
	PIPE	35	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	4	Nos.										
	TEE 250 EQ	1	Nos.										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	FLANGE PN 10	4	Nos.										
2.4.11	RUBBER HOSE ASSEMBLY, 25 NB X 15 METER LONG	12	Nos.										
2.5	SUMP PUMP & MISC (MATERIAL : IS 1239 HEAVY ERW UP TO & INCLUDING 150 NB , IS 3589 ROLLED & WELDED PLATES CONFORMING TO IS 2062 ABOVE 150 NB)												
2.5.1	PIPE SIZE (OD 21.8 MM X THICK 3.2 MM)												
	PIPE	10	Meters										
2.5.2	PIPE SIZE (OD 76.6 MM X THICK 4.5 MM)												
	PIPE	400	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	80	Nos.										
	TEE 65 X 65	20	Nos.										
2.5.3	PIPE SIZE (OD 89.5 MM X THICK 4.8 MM)												
	PIPE	80	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	20	Nos.										
	TEE 80 X 80	6	Nos.										
2.5.4	PIPE SIZE (OD 115.0 MM X THICK 5.4 MM)												
	PIPE	250	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90)	66	Nos.										
	TEE 100 X 100	12	Nos.										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	FLANGE PN 10	120	Nos.										
2.5.5	PIPE SIZE (OD 323.9 MM X THICK 6.0 MM)												
	PIPE	50	Meters										
	FLANGE PN 10	12	Nos.										
2.5.6	M.S FUNNELS 300 MM INLET X 65 NB OUTLET X 3MM THICK	10	Nos.										
2.6	EQUIPMENT COOLING WATER SYSTEM												
2.6.1	FROM ECW TANK TO EMCW PUMPS SUPPLY HDR, ASTM-A312 , OD - 114.3 x THICK - 3.05 mm												
	PIPE	120	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 100	12	Nos.										
	TEE 250 / 200	1	Nos.										
	TEE 250 / 150	1	Nos.										
	FLANGE PN 16, NB 100	2	Nos.										
2.6.2	ECW TO ECW PUMPS , IS 2062 R&W IS3589, OD - 711mm x THICK - 6.0 mm												
	PIPE	30	Meters										
	BLANK FLANGE, NB 700	2	Nos.										
2.6.3	ECW TO ECW PUMPS , IS 2062 R&W IS3589, OD - 508mm x THICK - 7.0 mm												

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	PIPE	12	Meters										
	FLANGE PN10, NB 500	6	Nos.										
2.6.4	ECW PUMPS BY PASS, IS 2062 R&W IS3589, OD - 323.8mm x THICK - 10.0 mm												
	PIPE	15	Meters										
2.6.5	ECW PUMPS DISCH, IS 2062 R&W IS3589, OD - 457.2mm x THICK - 6.0 mm												
	PIPE	12	Meters										
	FLANGE PN10, NB 450	6	Nos.										
2.6.6	FROM ECW PUMPS DISCH HDR, IS 2062 R&W IS3589, OD - 711mm x THICK - 6.0 mm												
	PIPE	15	Meters										
	BLANL FLANGE , NB 600	2	Nos.										
	BLANK FLANGE , NB 700	2	Nos.										
2.6.7	TG PHE'S IN LET, IS 2062 R&W IS3589, OD - 406.4mm x THICK - 6.0 mm												
	PIPE	12	Meters										
	FLANGE PN10, NB 400	6	Nos.										
2.6.8	TG PHE'S OUT LET UP TO HDR, IS 2062 R&W IS3589, OD - 406.4mm x THICK - 6.0 mm												
	PIPE	12	Meters										
	FLANGE PN10, NB 400	6	Nos.										
2.6.8.1	TG PHE'S OUT LET HDR, IS 2062 R&W IS3589, OD - 711mm x THICK - 6.0 mm												

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	PIPE	30	Meters										
2.6.8.2	TG PHE'S OUT LET HDR, IS 2062 R&W IS3589, OD - 610 mm x THICK - 7.0 mm												
	PIPE	15	Meters										
2.6.8.3	TG PHE'S OUT LET HDR, IS 2062 R&W IS3589, OD - 508mm x THICK - 7.0 mm												
	PIPE	10	Meters										
2.6.8.4	TG PHE'S OUT LET HDR, IS 2062 R&W IS3589, OD - 355.6mm x THICK - 6.0 mm												
	PIPE	20	Meters										
2.6.8.5	TG PHE'S OUT LET HDR, IS 2062 R&W IS3589, OD - 323.9mm x THICK - 6.0 mm												
	PIPE	10	Meters										
2.6.8.6	TG PHE'S OUT LET HDR, IS 2062 R&W IS3589, OD - 273mm x THICK - 6.0 mm												
	PIPE	25	Meters										
	ELBOW (RAD./ ANG. : 1.5D) , NB 250	8	Nos.										
	REDUCER, 250/200	1	Nos.										
	REDUCER, 250/150	1	Nos.										
	TEE 250X200	1	Nos.										
	TEE 250X150	2	Nos.										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
2.6.8.7	TG PHE'S OUT LET HDR, IS 2062 R&W IS3589, OD - 219.1mm x THICK - 6.0 mm												
	PIPE	25	Meters										
	ELBOW (RAD./ ANG. : 1.5D) , NB 200	8	Nos.										
	REDUCER, 200/65	1	Nos.										
	TEE 200X150	1	Nos.										
	TEE 200X40	1	Nos.										
2.6.9	ECW TO SEAL OIL COOLERS, IS1239 Pt1 HEAVY Gr., OD - 166.5 mm x THICK - 5.4 mm												
	PIPE	60	Meters										
	ELBOW (RAD./ ANG. : 1.5D) , NB 150	12	Nos.										
	TEE 150 EQ	3	Nos.										
	FLANGE PN10, NB150	4	Nos.										
2.6.10	ECW TO COMPRESSORS, IS 1239 Pt I ERW HEAVY GR. , OD- 219.1 X THICK- 6.0 MM												
	PIPE	135	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 200	18	Nos.										
	FLANGE PN10, NB200	9	Nos.										
2.6.11	ECW TO MILL REJECT SYSEM, IS 1239 Pt I ERW HEAVY GR. , OD- 76.6 X THICK- 4.5 MM												
	PIPE	250	Meters										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	ELBOW (RAD./ ANG. : 1.5D) , NB 65	15	Nos.										
2.6.12	ECW TO EXCITER AIR COOLERS												
2.6.12.1	IS 2062 R&W IS3589, OD- 219.1 X THICK- 6.0 MM												
	PIPE	10	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 200	4	Nos.										
	TEE 200 EQ	1	Nos.										
	TEE 200X150	6	Nos.										
	BLANK FLANGE, NB 150	2	Nos.										
2.6.12.2	IS 1239 Pt1 HEAVY Gr, OD- 166.5 X THICK- 5.4 MM												
	PIPE	24	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 150	4	Nos.										
2.6.13	ECW TO HYDROGEN COOLERS UP TO TP, IS 2062 R&W IS3589, OD- 273 X THICK- 6.0 MM												
	PIPE	30	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 250	6	Nos.										
2.6.14	ECW TO SWAS ROOM, IS 1239 Pt I ERW HEAVY GR., (OD 76.6 MM X THICK 4.5 MM)												
	PIPE	80	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 65	8	Nos.										
	FLANGE , PN 10, NB 65	9	Nos.										

Clause No.	DESCRIPTION	UNIT Rate in Rs. (in figures and Word)							AMOUNT IN RUPEES				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
2.6.15	ECW TO BFPS, IS 1239 Pt I ERW HEAVY GR., (OD 166.5 MM X THICK 5.4 MM)												
	PIPE	75	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 150	12	Nos.										
	REDUCER, 150/100	9	Nos.										
	TEE 150 EQ	3	Nos.										
	FLANGE, PN 10, NB 150	12	Nos.										
2.6.16	ECW TO LO COOLERS, IS1239, Pt1 ERW, HEAVY GR. , OD - 89.5 MM X THICK- 4.8 MM												
	PIPE	75	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 80	18	Nos.										
	REDUCER, 150/80	9	Nos.										
	FLANGE, PN 10, NB 80	12	Nos.										
2.6.17	ECW TO BFPS SEAL COOLERS, IS 1239 Pt I ERW HEAVY GR., (OD 76.6 MM X THICK 4.5 MM)												
	PIPE	90	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 50	36	Nos.										
	REDUCER, 80/50	12	Nos.										
	REDUCER, 65/50	3	Nos.										
	FLANGE, PN 10, NB 65	6	Nos.										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
2.6.18	ECW TO BOOSTER PUMP JACKET, IS 1239 Pt I ERW HEAVY GR. OD 48.8 MM X THICK 4.0 MM												
	PIPE	120	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 40	18	Nos.										
	REDUCER, 40/25	3	Nos.										
2.6.19	ECW TO W.O.COOLERS, IS 1239 Pt I ERW HEAVY GR. , OD 115.0 MM X THICK 5.4 MM												
	PIPE	80	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 100	15	Nos.										
	TEES 100 EQ	1	Nos.										
	FLANGE, PN 10, NB 100	12	Nos.										
2.6.20	ECW TO MOTOR AIR COOLER, IS 1239 Pt I ERW HEAVY GR. , OD 115.0 MM X THICK 5.4 MM												
	PIPE	150	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 100	10	Nos.										
	FLANGE, PN 10, NB 100	6	Nos.										
2.6.21	ECW TO UNIT OIL PURIFIER, IS 1239 Pt I ERW HEAVY GR. , OD 34.2 MM X THICK 4.0 MM												
	PIPE	30	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 25	6	Nos.										
	TEES 25 EQ	1	Nos.										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
2.6.22	ECW TO CENTRAL OIL PURIFIER, IS 1239 Pt I ERW HEAVY GR. , OD 34.2 MM X THICK 4.0 MM												
	PIPE	30	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 25	6	Nos.										
2.6.23	ECW TO ECW BOOSTER PUMPS, IS2062 R&W IS3589, OD 273 MM X THICK 6.0 MM												
	PIPE	80	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 250	15	Nos.										
	TEES 250EQ	1	Nos.										
2.6.24	BOOSTER PUMP DISCHARGE, IS2062 R&W IS3589, OD 270 MM X THICK 6.0 MM												
	PIPE	150	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 250	10	Nos.										
	TEES 250EQ	1	Nos.										
	TEES 250X150	1	Nos.										
2.6.25	TO ASH HANDLING PLANT, IS1239 Pt1 HEAVY Gr., OD 166.5 MM X THICK 5.4 MM												
	PIPE	60	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 150	6	Nos.										
	FLANGE, PN 10, NB 150	2	Nos.										
2.6.26	TO AHP IN ESP AREA , IS1239 Pt1 HEAVY Gr., OD 115 MM X THICK 5.4 MM												
	PIPE	60	Meters										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 100	6	Nos.										
	FLANGE, PN 10, NB 100	2	Nos.										
2.6.27	TO SWAS FOR D/A SERVICE, IS1239 Pt1 HEAVY Gr., OD 60.8 MM X THICK 4.5 MM												
	PIPE	100	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 50	10	Nos.										
	FLANGE, PN 10, NB 50	2	Nos.										
2.6.28	TO SWAS FEED WATER DRUM & BOILER AUXILIARY UP TP TP, IS1239 Pt1 HEAVY Gr., OD 273 MM X THICK 6.0 MM												
	PIPE	20	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 250	6	Nos.										
	FLANGE, PN 16, NB 200	2	Nos.										
2.6.29	DRAIN VENT, IS1239 Pt1 HEAVY Gr., OD 34.2 MM X THICK 4.0 MM												
	PIPE	200	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 25	30	Nos.										
2.6.30	TG PHE'S OUT LET UP TO HDR, IS 2062 R&W IS3589, OD 406.4 MM X THICK 6.0 MM												
	PIPE	12	Meters										
	FLANGE, PN 10, NB 400	6	Nos.										
2.6.31	RETURN HEADER, IS 2062 R&W IS3589, OD 711 MM X THICK 6.0 MM												

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	PIPE	30	Meters										
2.6.31.1	RETURN HEADER, IS 2062 R&W IS3589, OD 610 MM X THICK 7.0 MM												
	PIPE	15	Meters										
2.6.31.2	RETURN HEADER, IS 2062 R&W IS3589, OD 508 MM X THICK 7.0 MM												
	PIPE	10	Meters										
2.6.31.3	RETURN HEADER, IS 2062 R&W IS3589, OD 355.6 MM X THICK 6.0 MM												
	PIPE	20	Meters										
2.6.31.4	RETURN HEADER, IS 2062 R&W IS3589, OD 323.9 MM X THICK 6.0 MM												
	PIPE	10	Meters										
2.6.31.5	RETURN HEADER, IS 2062 R&W IS3589, OD 273 MM X THICK 6.0 MM												
	PIPE	25	Meters										
	ELBOW (RAD./ ANG. : 1.5D) , NB 250	8	Nos.										
	REDUCER, 250/200	1	Nos.										
	REDUCER, 250/150	1	Nos.										
	TEE 250X200	1	Nos.										
	TEE 250X150	2	Nos.										
2.6.31.6	RETURN HEADER, IS 2062 R&W IS3589, OD 219.1 MM X THICK 6.0 MM												
	PIPE	25	Meters										
	ELBOW (RAD./ ANG. : 1.5D) , NB 250	8	Nos.										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	REDUCER, 200/65	1	Nos.										
	TEE 200X40	1	Nos.										
	TEE 200X150	1	Nos.										
2.6.32	ECW FROM SEAL OIL COOLERS, IS1239 Pt1 HEAVY Gr., OD 166.5 MM X THICK 5.4 MM												
	PIPE	60	Meters										
	ELBOW (RAD./ ANG. : 1.5D) , NB 150	12	Nos.										
	TEE 150 EQ	3	Nos.										
	FLANGE, PN 10, NB 150	4	Nos.										
2.6.33	ECW FROM COMPRESSORS, IS 3589 EFW/ERW/SW , OD 219.1 MM X THICK 6.0 MM												
	PIPE	135	Meters										
	ELBOW (RAD./ ANG. : 1.5D/ 90) , NB 200	18	Nos.										
	FLANGE, PN 10, NB 200	9	Nos.										
2.6.34	ECW FROM MILL REJECT SYATEM, IS1239 Pt1 ERW HEAVY Gr., OD 76.6 MM X THICK 4.5 MM												
	PIPE	250	Meters										
	ELBOW (RAD./ ANG. : 1.5D) , NB 65	15	Nos.										
2.6.35	ECW FROM EXCITER AIR COOLERS												
2.6.35.1	IS 2062 EFW/ERW/SW IS3589, OD 219.1X THICK 6.0 MM												
	PIPE	10	Meters										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 200	4	Nos.										
	TEE 200 EQ	1	Nos.										
	TEE 200 X 150	6	Nos.										
	BLANK FLANGE, NB 150	2	Nos.										
2.6.35.2	IS 3589 , EFW/ERW/SW, OD 166.5X THICK 5.4 MM												
	PIPE	24	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 150	4	Nos.										
2.6.36	ECW FROM HYDROGEN COOLERS UP TO TP,IS 3589 , EFW/ERW/SW, OD 273 X THICK 6.0 MM												
	PIPE	30	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 250	6	Nos.										
2.6.37	ECW FROM SWAS ROOM,IS 1239 Pt I ERW HEAVY GR. OD 76.6 X THICK 4.5 MM												
	PIPE	80	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 65	8	Nos.										
	FLANGE, PN 10, NB 65	9	Nos.										
2.6.38	ECW FROM BFPS ,IS 1239 Pt I ERW HEAVY GR. OD 166.5 X THICK 5.4 MM												
	PIPE	75	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 150	12	Nos.										
	REDUCER 150 / 100	9	Nos.										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	TEES 150 EQ	3	Nos.										
	FLANGE PN 10, NB 150	12	Nos.										
2.6.39	ECW FROM L.O.COLLERS ,IS 1239 Pt I ERW HEAVY GR. OD 89.5 X THICK 4.8 MM												
	PIPE	75	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 80	18	Nos.										
	REDUCER 150 / 80	9	Nos.										
	FLANGE PN 10, NB 80	12	Nos.										
2.6.40	ECW FROM BFPS SEAL COOLERS ,IS 1239 Pt I ERW HEAVY GR. OD 76.6 X THICK 4.5 MM												
	PIPE	90	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 50	36	Nos.										
	REDUCER 80/50	12	Nos.										
	REDUCER 65/50	3	Nos.										
	FLANGE PN 10, NB 65	6	Nos.										
2.6.41	ECW FROM BOOSTER PUMP JACKET ,IS 1239 Pt I ERW HEAVY GR. OD 48.8 X THICK 4.0 MM												
	PIPE	120	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 40	18	Nos.										
	REDUCER 40/25	3	Nos.										

Clause No.	DESCRIPTION	UNIT Rate in Rs. (in figures and Word)							AMOUNT IN RUPEES				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
2.6.42	ECW FROM W.O.COOLERS,IS 1239 Pt I ERW HEAVY GR. OD 115 X THICK 5.4 MM												
	PIPE	80	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 100	15	Nos.										
	TEES 100 EQ	1	Nos.										
	FLANGE PN 10, NB 100	12	Nos.										
2.6.43	ECW FROM MOTOR AIR COOLER,IS 1239 Pt I ERW HEAVY GR. OD 115 X THICK 5.4 MM												
	PIPE	150	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 100	10	Nos.										
	FLANGE PN 10, NB 100	6	Nos.										
2.6.44	ECW FROM UNIT OIL PURIFIER, IS 1239 Pt I ERW HEAVY GR. OD 34.2 X THICK 4.0 MM												
	PIPE	30	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 25	6	Nos.										
	TEES 25EQ	1	Nos.										
2.6.45	ECW FROM CENTRAL OIL PURIFIER, IS 1239 Pt I ERW HEAVY GR. OD 34.2 X THICK 4.0 MM												
	PIPE	30	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 25	6	Nos.										
2.6.46	ECW FROM ECW BOOSTER PUMPS, IS 3589 , EFW/ERW/SW, OD 273 X THICK 6.0 MM												
	PIPE	80	Meters										

Clause No.	DESCRIPTION	UNIT Rate in Rs. (in figures and Word)							AMOUNT IN RUPEES				
		Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	TENDER NO. PSER:SCT:KBA-M657:06												
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 250	15	Nos.										
	TEES 250 EQ	1	Nos.										
2.6.47	FROM ASH HANDLING PLANT, IS1239 Pt1 HEAVY Gr., OD 166.5X THICK 5.4 MM												
	PIPE	60	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 150	6	Nos.										
	FLANGE, PN 10, NB 150	2	Nos.										
2.6.48	FROM AHP IN ESP AREA, IS1239 Pt1 HEAVY Gr., OD 115.0 X THICK 5.4 MM												
	PIPE	60	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 100	6	Nos.										
	FLANGE, PN 10, NB 100	2	Nos.										
2.6.49	FROM SWAS FOR D/A SERVICE, IS1239 Pt1 HEAVY Gr., OD 60.8 X THICK 4.5 MM												
	PIPE	100	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 50	10	Nos.										
	FLANGE, PN 10, NB 50	2	Nos.										
2.6.50	FROM SWAS FEED WATER DRUM & BOILER AUXILIARY UP TP TP, IS 3589 EFW/ERW/SW, OD 273 X THICK 6.0 MM												
	PIPE	20	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 250	6	Nos.										
	FLANGE, PN 16, NB 200	2	Nos.										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
2.6.51	DRAIN VENT, IS1239 Pt1 HEAVY Gr., OD 34.2 X THICK 4.0 MM												
	PIPE	200	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 25	30	Nos.										
2.7	INSTRUMENT AIR PIPING (IS 1239 (H) GALVANISED)												
2.7.1	INTERCONNECTING HEADER, OD - 115mm X THICK - 5.4 mm												
	PIPE	116	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 100	9	Nos.										
	TEES 100 EQ	1	Nos.										
	TEES 100 X 80	2	Nos.										
	FLANGE, BS4504, 100 NB	38	Nos.										
2.7.2	INTERCONNECTING HEADER TO UNIT HEADER, OD - 89.5 mm X THICK - 4.8 mm												
	PIPE	25	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 80	3	Nos.										
	REDUCER 80/50	1	Nos.										
2.7.3	FROM CUSTOMER T.P. TO INTERCONNECTING TO HEADER, OD -114.3 mm X THICK - 5.4 mm												
	PIPE	14	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 100	2	Nos.										
	TEES 100 EQ	1	Nos.										
2.7.4	FROM INTERCONNECTING HEADER TO UNIT HEADER, OD -89.5 mm X THICK - 4.8 mm												

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	PIPE	9	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 80	6	Nos.										
	REDUCER 80 X 50	2	Nos.										
	TEEs 80 x 50	1	Nos.										
	FLANGE BS 4504, NB 80	16	Nos.										
2.7.5	RING HEADER, OD - 60.3 mm X THICK - 4.5 mm												
	PIPE	108	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 50	11	Nos.										
	ELBOW (RAD./ ANG. : 1.5D/45) , NB 50	2	Nos.										
	TEEs 50 EQ	2	Nos.										
	TEES 50 X 25	11	Nos.										
	TEES 50 X 15	1	Nos.										
2.7.6	UNIT HEADER TO FROM RING HEADER, OD - 60.3 mm X THICK - 4.5 mm												
	PIPE	6	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 50	4	Nos.										
	ELBOW (RAD./ ANG. : 1.5D/45) , NB 50	4	Nos.										
	FUNNEL 100 /50	15	Nos.										
2.7.7	FROM HEADER UP TO FIRST ROW BOILER COLUMNS, OD - 60.3 mm X THICK - 4.5 mm												

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	PIPE	65	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 50	7	Nos.										
	TEEs 100 X 50	1	Nos.										
2.7.8	FROM GENERATOR AIR TIGHTNESS, OD - 89.5 mm X THICK - 4.8 mm												
	PIPE	28	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 80	2	Nos.										
	REDUCER 80/50	2	Nos.										
	TEES 80 EQ	1	Nos.										
	TEEs 100 x 80	2	Nos.										
2.7.9	FOR GENERATOR AIR TIGHTNESS, OD - 60.3 mm X THICK - 4.5 mm												
	PIPE	10	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 50	1	Nos.										
2.7.10	FOR CO2 PURGING, OD - 60.3 mm X THICK - 4.5 mm												
	PIPE	10	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 50	3	Nos.										
2.7.11	FOR VERIOUS PNUMATIC VALVES, OD - 34.2 mm X THICK - 4.0 mm												
	PIPE	500	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 25	40	Nos.										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	TEEs 25 EQ	20	Nos.										
2.7.12	FOR VERIOUS PNUMATIC VALVES, OD - 21.3 mm X THICK - 3.2 mm												
	PIPE	200	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 15	20	Nos.										
	TEEs 15 EQ	20	Nos.										
2.7.13	AUTO DRAIN TRAPE ASSEMBLAY, OD - 34.2 mm X THICK - 4.0 mm												
	PIPE	120	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 25	60	Nos.										
	TEEs 25 EQ	60	Nos.										
2.7.14	SOCKETS												
	50 NB	50	Nos.										
	25 NB	155	Nos.										
	15 NB	50	Nos.										
2.7.15	SOCKETS UNION												
	50 NB	25	Nos.										
	25 NB	78	Nos.										
	15 NB	25	Nos.										
2.7.16	NIPPLES												
	50 NB	20	Nos.										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	40 NB	5	Nos.										
	25 NB	5	Nos.										
	15 NB	80	Nos.										
2.8	SERVICE AIR PIPING (IS 1239 (H) GALVANISED)												
2.8.1	FROM CUSTOMER T.P. TO MAIN HEADER, OD 115 X THICK 5.4 MM												
	PIPE	14	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 100	2	Nos.										
	TEES 100 EQ	1	Nos.										
2.8.2	INTERCONNECTING HEADER INCULDING RING HEADER, OD 115 X THICK 5.4 MM												
	PIPE	230	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 100	25	Nos.										
	TEES 100 EQ	6	Nos.										
	TEES 100 X 50	10	Nos.										
	FLANGE, BS 4504, NB 100	2	Nos.										
	BLANK FLANGE, NB 100	2	Nos.										
2.8.3	FROM HEADER TO FIRST ROW OF BOILER COIUMNS, OD 115 X THICK 5.4 MM												
	PIPE	40	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 100	4	Nos.										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
2.8.4	FROM RING HEADER TO RISER AT VERIOUS FLOOR, OD 60.3 X THICK 4.5 MM												
	PIPE	20	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 50	16	Nos.										
	REDUCER 50 X 40	7	Nos.										
	TEEs 50 EQ	8	Nos.										
2.8.5	FROM RING HEADER TO RISER AT VERIOUS FLOOR, OD 48.8 X THICK 4.0 MM												
	PIPE	20	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 40	16	Nos.										
	REDUCER 40 X 25	7	Nos.										
	TEEs 40 EQ	16	Nos.										
2.8.6	FROM RISER TO FLOORS, OD 34.2 X THICK 4.0 MM												
	PIPE	50	Meters										
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 40	20	Nos.										
2.8.7	FROM RISER TO FLOORS, OD 48.8 X THICK 4.0 MM												
	PIPE	16	Meters										
	TEEs 40 EQ	8	Nos.										
2.8.8	FROM RING HEADER TO DEARATOR, OD 34.2 X THICK 4.0 MM												
	PIPE	25	Meters										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	ELBOW (RAD./ ANG. : 1.5D/90) , NB 25	4	Nos.										
	TEEs 25 EQ	1	Nos.										
2.8.9	SOCKETS												
	50 NB	5	Nos.										
	40 NB	6	Nos.										
	25 NB	25	Nos.										
	SOCKETS UNION												
	50 NB	3	Nos.										
	40 NB	3	Nos.										
	25 NB	13	Nos.										
	NIPPLES												
	25 NB (ONE END THREADED TO SUIT VALVE OTHEREND FOR CONNECTION TO HOSE PIPE)	35	Nos.										
	25 NB	70	Nos.										
2.9	ACW SYSTEM [C S (IS 2062), R & W AS PER IS 3589]												
2.9.1	ACW FROM CW INLET TO ACW PUMPS												
	FLANGES (BLANK) ,700 NB	2	Nos.										
	FLANGES (BLANK) ,600 NB	2	Nos.										
	FLANGES (PN 10) ,600 NB	12	Nos.										
2.9.2.1	ACW PUMPS DISCHARGE TO SELF CLEANING STRAINER												

Clause No.	DESCRIPTION	UNIT Rate in Rs. (in figures and Word)							AMOUNT IN RUPEES				
		Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	TENDER NO. PSER:SCT:KBA-M657:06												
	FLANGES (BLANK) ,450 NB	2	Nos.										
	FLANGES (PN 10) ,450 NB	24	Nos.										
2.9.2.2	SELF CLEANING FILTER TO PHEs												
	FLANGES (PN 10) ,700 NB	8	Nos.										
	FLANGES (PN 10) ,400 NB	8	Nos.										
2.9.3	TO VACUUM PUMPS												
	FLANGES (PN 16) ,250 NB	8	Nos.										
2.9.4	ACW PUMPS BYPASS												
	BENDS / ELBOWS (RAD./ ANG.:1.5D/90) , 250 NB	8	Nos.										
	FLANGES (PN 16) ,250 NB	4	Nos.										
2.9.5	VACUUM PUMPS DISCHARGE												
	BENDS / ELBOWS (RAD./ ANG.:1.5D/90) , 200 NB	6	Nos.										
	BENDS / ELBOWS (RAD./ ANG.:1.5D/90) , 250 NB	8	Nos.										
	REDUCERS (250/200 NB)	2	Nos.										
	FLANGES (PN 16) ,200 NB	8	Nos.										
2.9.6	DRAIN & VENT [IS 1239(Pt-I), HEAVY ERW]												
	BENDS / ELBOWS (RAD./ ANG.:1.5D/90) , 25 NB	60	Nos.										
	TEES (25x25 NB)	12	Nos.										
2.10	CW SYSTEM [R&W FROM PLT. TO IS 2062]												

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
2.10.1	CW PUMP DISCH . UNIT#1												
	FLANGES (PN 10) ,1800 NB	4	Nos.										
2.10.2	CW PUMP DISCH . UNIT#2												
	FLANGES (PN 10) ,1800 NB	4	Nos.										
2.10.3	CW PUMP DISCH STAND BY INTERCONNECTION												
	FLANGES (PN 10) ,1800 NB	4	Nos.										
2.10.4	CW HEADER FOR UNIT # 1 (BURIED)												
	FLANGES (END CAP) ,2500 NB	2	Nos.										
2.10.5	CW TO COND INLET UNIT #1												
	FLANGES (PN 10) ,1800 NB	4	Nos.										
2.10.6	CW HEADER FOR UNIT #2 (BURIED)												
	FLANGES (END CAP) ,2500 NB	2	Nos.										
2.10.7	CONDENSER INLET UNIT #2												
	FLANGES (PN 10) ,1800 NB	4	Nos.										
2.10.8.1	BLOW DOWN TO ASH WATER TANK [IS 1239 Pt-1 (H) ERW]												
	BENDS / ELBOWS (RAD./ ANG.:1.5D/90), 150 NB	4	Nos.										
2.10.8.2	BLOW DOWN TO ASH WATER TANK [R&W FROM PLT. TO IS 2062]												
	BENDS / ELBOWS (RAD./ ANG.:1.5D/90), 200 NB	12	Nos.										
	REDUCERS (200/150 NB)	2	Nos.										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	TEES (200x200 NB)	1	No										
2.10.9	DRAIN AND VENT [IS 1239 Pt-1 (H) ERW]												
	BENDS / ELBOWS (RAD./ ANG.:1.5D/90), 50 NB	10	Nos.										
	BENDS / ELBOWS (RAD./ ANG.:1.5D/90),150 NB	15	Nos.										
2.11	RAW WATER [R&W FROM PLT. TO IS 2062]												
2.11.1	RAW WATER PUMP DISCHARGE UPTO HDR												
	FLANGES (PN 10) ,600 NB	12	Nos.										
2.11.2	RAW WATER FROM BOUNDRY TO CLARIFULCCULATOR												
	TEES (150X150 NB)	1	No										
2.11.3	RAW WATER TO ASH HANDLING PLANT UP TO TP (ON PEDESTALS)												
	FLANGES (PN 10) ,450 NB	2	Nos.										
2.12	CW BLOW DOWN [R&W FROM PLT. TO IS 2026]												
2.12.1	CW BLOW DOWN FROM CW DISCH HEADER UP TO CMB												
	FLANGES (PN 10) ,300 NB	2	Nos.										
2.12.2	TO ASH HANDLING PLANT UP TO TP												
	FLANGES (PN 10) ,300 NB	2	Nos.										
2.12.3	TO CW SIDE STREAM TREATMENT PLANT [R&W FROM PLT. TO IS 2062]												
	FLANGES (PN 10) ,350 NB	2	Nos.										
2.13	CLARIFIED WATER [R&W FROM PLT. TO IS 2062]												

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
2.13.1	CLARIFIED WATER RESERVOIR TO P/H												
	FLANGES (PN 10) ,600 NB	4	Nos.										
	FLANGES (BLANK PL) ,900 NB	2	Nos.										
2.13.2	HEADER TO CW MAKE UP PUMPS												
	FLANGES (PN 10) ,450 NB	6	Nos.										
2.13.3	CW MAKE UP PUMP DISCH TO CW DISCH HDR NEAR CT												
	FLANGES (BLANK PL) ,600 NB	2	Nos.										
	FLANGES (PN 10) ,400 NB	12	Nos.										
2.13.4	HEADER TO HVAC MAKE UP PUMPS [IS 1239 Pt1 HEAVY]												
	FLANGES (PN 16) ,150 NB	4	Nos.										
2.13.5	HVAC PUMP DISCHARGE [IS 1239 Pt1 - HEAVY]												
	BENDS / ELBOWS (RAD./ ANG.:1.5D/90), 100 NB	2	Nos.										
	TEES (150X100 NB)	2	Nos.										
	TEES (150 NB)	1	No.										
	FLANGES (PN 16) ,100 NB	8	Nos.										
2.13.6	HEADER TO HVAC MAKE UP [IS 1239 Pt1 - HEAVY]												
	BENDS / ELBOWS (RAD./ ANG.:1.5D/90), 150 NB	8	Nos.										
	FLANGES (BLANK PL) ,150 NB	2	Nos.										
2.13.7	HEADER TO ASH WATER PUMP												

Clause No.	DESCRIPTION	UNIT Rate in Rs. (in figures and Word)							AMOUNT IN RUPEES				
		Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
	TENDER NO. PSER:SCT:KBA-M657:06												
	FLANGES (PN 10) ,250 NB	4	Nos.										
2.13.8	ASH WATER PUMP DISCH												
	BENDS / ELBOWS (RAD./ ANG.:1.5D/90), 200 NB	4	Nos.										
	REDUCERS (300/150 NB)	2	Nos.										
	FLANGES (PN 10) ,200 NB	8	Nos.										
2.13.9	HEADER TO APH WASHING UP TP TRICHY TP												
2.13.10	CHP DUST SUPPRESSION PUMP												
	FLANGES (PN 10) ,300 NB	4	Nos.										
2.13.11	CHP DUST SUPPRESSION PUMP DISCH												
	FLANGES (PN 10) ,300 NB	8	Nos.										
2.14	Seamless pipes as per SA 106 , Group-B (Diameter x Thickness in mm)												
	273 X 9.27	150	Meters										
	219 X 8.18	40	Meters										
	48.3 X 5.08	100	Meters										
	114 X 6.02	20	Meters										
2.15	Seamless pipes as per API 5L, Group-B (Diameter x Thickness in mm)												
	273 X 9.27	300	Meters										
2.16	Supporting components like U bolts, clamps, tie rods, fasteners etc. of LP Piping package	10	MT										

<u>Clause No.</u>	<u>DESCRIPTION</u>	<u>UNIT Rate in Rs. (in figures and Word)</u>							<u>AMOUNT IN RUPEES</u>				
	TENDER NO. PSER:SCT:KBA-M657:06	Qty.	Unit	Basic Price	Excise duty @ ____ %	Sales tax (CST/VAT) @ ____ %	Freight & others	Total unit price in Rs.	Basic Price	Excise duty	Sales tax (CST/VAT)	Freight & others	Total AMOUNT
2.17	Auxiliary structures for hanger and supports of LP Piping package, like beams, angles, channels & other steel items etc.	20	MT										
2.18	Any other item not indicated above, but required to complete the system (supply portion) as detailed in tender specifications (please furnish details) as per system requirements.	1	Lot										
	SUM TOTAL AMOUNT OF 2.1 TO 2.18 ABOVE In Figures and words												
NOTES													
1	The bidder shall furnish unit rates for all items for necessary adjustment during execution stage. The unit rates quoted above shall be considered and no separate unit rates shall be quoted. Unit rates shall be valid throughout the contract. BHEL reserves the right to rationalise / match the rates of Overall L1 bidder, with respect to itemwise L1 rates (amongst the participating bidders) of items, before placement of order. In case, it is observed that bidder has quoted more than one rate for a particular item (having identical technical specifications) in the price bid, then for ordering purpose, lowest rates shall only be considered, however for evaluation purpose (deciding L1), only quoted rates shall be considered.												
2	Bidder must submit prices in the Pro Forma duly filled in signed and stamped on every page without any ambiguity. The price shall be written against each item. Term such as "refer covering letter" etc. are not acceptable. Extra sheet may be attached if the space provided is not sufficient												
3	Price format shall not be changed by the bidder												

TENDER DOCUMENT NO - PSER:SCT:KBA-M657:06

VOLUME - III (SERVICES PORTION), Rev-02

BOQ CUM SCHEDULE OF RATES

**ERECTION AND COMMISSIONING OF CW/LP PIPING PACKAGE
OF KORBA (EAST) 2 x 250 MW PROJECT [Unit-I & II] , Korba,
Chhatishgarh
AT**

**2 X 250 MW KORBA (EAST) TPP UNITS – 1 & 2
Chhatishgarh**

**BHARAT HEAVY ELECTRICALS LIMITED
(A Govt Of India Undertaking)
POWER SECTOR – EASTERN REGION
PLOT – DJ 9/1, SECTOR II, SALT LAKE
KOLKATA – 700 091**

**ERECTION AND COMMISSIONING OF CW/LP PIPING PACKAGE OF KORBA (EAST) 2 x
250 MW PROJECT [Unit-I & II] , Korba, Chhatishgarh**

TENDER DOCUMENT NO: PSER:SCT:KBA -M657:06


BOQ CUM SCHEDULE OF RATES

VOLUME – III (SERVICES PORTION), Rev-02

PREAMBLE

- | | |
|---|---|
| 1 | This preamble forms part of tender document and schedule of items. The tenderer should read this preamble carefully in rates for various items. Clauses under this preamble shall be read in conjunction with Volume-IB, Volume- ID and Volume – II and other tender sections as applicable. |
| 2 | The work shall be carried out strictly as per specifications, description of the items in these schedule and / or engineer's instructions. Drawings enclosed with this document are only preliminary for giving some idea of work involved. |
| 3 | Items of work provided in this schedule but not covered in this specification shall be executed strictly as per instruction of the engineer. |
| 4 | Unless specifically mentioned otherwise in the tender document, the tenderer shall quote for the finished items and shall provide for the complete cost towards power, fuel, tools, tackles, equipment, constructional plants, temporary works, contingency works to meet commissioning schedule, labour, dismantling of all temporary piping, structures, valves, pumps, tanks & other misc. equipment, strengthening of roads/culverts/bridges etc. including arranging all clearances etc. required for carrying out different activities & tests, materials, levies, taxes(except service tax), transport, layout, repairs, rectification, maintenance till handing over, supervisions, colonies, shops, establishments, overheads, profits and all incidental items like cleaning, painting (internal and external), buried protection, radiography, testing and Inspection, erection of free issue (non-billable items) etc. and no separate payment shall be made. items not specifically mentioned but reasonably implied and necessary to complete the work according to the complete tender document and this schedule. |
| 5 | The quantities of the various items mentioned in this schedule of items are approximate, based on very preliminary information and may vary to any extent or be deleted altogether. The quoted rates of each item will remain firm throughout the period of execution including extension, for reasons whatsoever, as long as variation in the total value of work executed under any part of this contract including extra items, if any but excluding any price variation remains, within thirty percent ($\pm 30\%$) of the awarded price (services portion) as per LOI . |
| 6 | The rates quoted shall be inclusive of cleaning of site of any vegetation, dressing , clearing of old structures/buried pipelines and leveling etc. including fixing of grid pillars, benchmarks etc. required for commencement of site activities. No separate payment will be made towards the same. |

7	The rate quoted shall also be inclusive of carrying out topography survey of site to establish levels and co-ordinates at suitable intervals, from existing grid levels and coordinates furnished by the owner, establish bench marks, setting out the locations and levels of the proposed structures, constructions and making references, pillars and other identification marks etc. No separate payment will be made towards the same.
8	Rates shall be quoted in figures and in words in clear legible writing. No overwriting is allowed. All scoring and cancellations should be countersigned and in case of illegibility the interpretation of engineer shall be final. All entries shall be in English language.
9	All works item wise shall be measured upon completion and paid for at the rates quoted and accepted as per BHEL approved payment schedule/billing break-up.
10	The tender shall be deemed to have visited site and made himself aware of all the site conditions, studied the specifications and details of work to be done within the time schedule attached and to have acquainted himself of the conditions prevailing at site.
11	No splitting of the job is envisaged. Decision of BHEL in this regard shall be final and binding to the bidders.
12	Engineer's decision shall be final and binding on the contractor regarding clarification of items in the schedule with respect to the other sections/volumes of the contract.
13	
	Note : Bidders to note the following for quoting their rates.
	1) Only authorised persons of bidder having power should sign in the price bid. All the pages must be signed.
	2) For bid evaluation purpose (deciding L1), grand total price for Supply, civil and mechanical BOQs shall be considered.
	3) Quoted rates shall be inclusive of all taxes, duties etc., except service tax as per tender terms. Service tax(as applicable) shall be payable/reimbursable extra as per tender terms.

		2X250 MW CSEB -KORBA (EAST) TPS		TITLE :- PACKAGE (LP & CW PIPING-CIVIL WORKS)		BOQ CUM RATE SCHEDULE (SERVICES)		SPECIFICATION NUMBER					
SL NO.		ST. NO		DESCRIPTION		UNIT		QTY.		RATE (In Indian Rupees)		AMOUNT (In Indian Rupees)	
										In figures		In words	
				TENDER NO. - PSER:SCT:KBA-M657:06 (VOL-III)									
		100		EARTH WORK IN EXCAVATION, BACKFILLING AND DISPOSAL AS PER SPECIFICATION, DRAWINGS AND AS DIRECTED BY ENGINEER FOR THE FOLLOWING:-									
1		101		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 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, etc but does not require chiselling or blasting.		CUM		29,600					
2		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 rock requiring chiselling, wedging, line drilling, pre shearing or any other means including supply, storage etc without damaging the existing structures and as approved by Engineer.		CUM		4,000					

SL NO.	ST. NO	DESCRIPTION	UNIT	QTY.	RATE (In Indian Rupees)		AMOUNT (In Indian Rupees)
					In figures	In words	
3	103	Earth work in excavation for depth exceeding 2.0m but not exceeding 4.0m below ground level for foundation, trenches, pipe lines, storm water drains etc including 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, etc but does not require chiselling or blasting.	CUM	16,000			
4	104	Earth work in excavation for depth exceeding 2.0m but not exceeding 4.0m below ground level for foundation, trenches, pipe lines, storm water drains etc including 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 rock requiring chiselling, wedging, line drilling, pre shearing or any other means etc without damaging the existing structures and as approved by Engineer.	CUM	4,000			
5	105	Earth work in excavation for depth exceeding 4.0m but not exceeding 6.0m below ground level for foundation, trenches, pipe lines, storm water drains etc including 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, etc but does not require chiselling or blasting.	CUM	9,600			

SL NO.	ST. NO	DESCRIPTION	UNIT	QTY.	RATE (In Indian Rupees)		AMOUNT (In Indian Rupees)
					In figures	In words	
6	106	Earth work in excavation for depth exceeding 4.0m but not exceeding 6.0m below ground level for foundation, trenches, pipe lines, storm water drains etc including 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 rock requiring chiselling, wedging, line drilling, pre shearing or any other means etc without damaging the existing structures and as approved by Engineer.	CUM	3,200			
7	107	Earth work in excavation for depth exceeding 6.0m but not exceeding 8.0m below ground level for foundation, trenches, pipe lines, storm water drains etc including 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, etc but does not require chiselling or blasting.	CUM	1,600			
8	108	Earth work in excavation for depth exceeding 6.0m but not exceeding 8.0m below ground level for foundation, trenches, pipe lines, storm water drains etc including 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 rock requiring chiselling, wedging, line drilling, pre shearing or any other means including supply, storage etc without damaging the existing structures and as approved by Engineer.	CUM	3,200			

SL NO.	ST. NO	DESCRIPTION	UNIT	QTY.	RATE (In Indian Rupees)		AMOUNT (In Indian Rupees)
					In figures	In words	
9	116	Disposal of surplus excavated earth/rock beyond an initial lead of 1km and upto a lead of 5 Km. dumping and levelling the dumped soil and levelling the area from where the material is transported, complete with all lifts as specified and directed by Engineer.	CUM	56,000			
10	117	Extra for Disposal of surplus excavated earth/rock beyond an initial lead of 5km and upto a lead of 10 Km., dumping, levelling the dumped soil and levelling the area from where the material is transported, complete with all lifts as specified and directed by Engineer. (Rate for every 1 Km or part thereof)	CUM	800			
11	118	Back filling around pipes/ foundations/ structures and plinths to proper grade and level with sand from Hasdeo / any neraby river including watering and ramming in layers of 25 cm. thickness to 80% relative density by manual/ mechanical means in saturated condition, dressing including transportation etc complete.	CUM	6,000			
12	118A	Back filling around foundations in 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	31,120			

SL NO.	ST. NO	DESCRIPTION	UNIT	QTY.	RATE (In Indian Rupees)		AMOUNT (In Indian Rupees)
					In figures	In words	
	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) COMPLETE AT ALL ELEVATIONS AS PER DRAWING, SPECIFICATIONS UNLESS SPECIFIED OTHERWISE AND AS DIRECTED BY ENGINEER FOR THE FOLLOWING:					
13	202	Plain Cement Concrete of grade 1:3:6 (Minimum M10) as levelling course, under water retaining structures, equipment foundations, under foundations/floors etc all complete.	CUM	560			
14	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.	CUM	320			
15	212	Concrete of Grade M-20 conforming to IS:456 with coarse sand and graded hard stone aggregate 20mm nominal size in foundation for all levels i.e. below and above ground etc. including foundation, plinth, paving & all structures underfloor, etc complete.	CUM	640			

SL NO.	ST. NO	DESCRIPTION	UNIT	QTY.	RATE (In Indian Rupees)		AMOUNT (In Indian Rupees)
					In figures	In words	
16	215	Breaking existing concrete work at any level including cutting reinforcements, removing the rubbish within a lead of 1Km., including making good the broken edges/surface with cement mortar, painting, finishing to match with existing finishing, scaffolding/supporting at any level, all complete and as directed by Engineer.	CUM	160			
	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:					
17	301	Ordinary form work below finished ground floor level or above ground for foundations, footings, bases of columns, walls, columns pilasters, beams, mass concrete, trenches etc.	SQM	7,840			
	400	REINFORCEMENTS					
18	401	Providing, straightening, cutting, bending, placing in position at any level, binding in position of mild steel reinforcements confirming to grade-1 of IS:432 (part-I) including cost of binding wire, labour, transportation to & from stores etc complete all as per specifications, drawings and as directed by Engineer. (Reinforcement will be supplied by BHEL)	MT	3			

SL NO.	ST. NO	DESCRIPTION	UNIT	QTY.	RATE (In Indian Rupees)		AMOUNT (In Indian Rupees)
					In figures	In words	
19	402	Providing, straightening, cutting, bending, placing in position at any level, binding in position of TMT steel reinforcements confirming of grade Fe-415 confirming to IS:1786 including cost of binding wire, labour, transportation to & from stores etc complete all as per specifications, drawings and as directed by Engineer. (Reinforcement will be supplied by BHEL)	MT	80			
20	701	Fabricating and fixing of embedments, MS inserts, Structural supports, hanger support or any other support structure made of pipe sleeves, guide rails, angle pieces, plates, channels, joists, 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 (Structural steel will be provided by BHEL free of cost).	MT	16			
21	1001	Providing brick work in cement mortar 1:6 (1 part cement: 6 parts coarse sand) in walls, chambers etc. of 254mm & above in thickness at all depths, places and positions below plinth including raking out joints, curing, scaffolding etc. all complete excluding plastering and painting, using bricks of class designation 7.5 or best locally available quality of nominal dimensions as per specification.	CUM	240			

SL NO.	ST. NO	DESCRIPTION	UNIT	QTY.	RATE (In Indian Rupees)		AMOUNT (In Indian Rupees)
					In figures	In words	
22	1002	Providing 254mm thick brick work in cement mortar 1:4 (1cement : 4 coarse sand) in walls, chambers etc. at all heights, places and position above plinth including raking out joints, curing, scaffolding, providing 3 nos. 6mm dia. MS bars at every third layer including cutting, bending, placing, tying/welding of reinforcement bar (MS bars shall be supplied by BHEL) etc complete but excluding plastering and painting, using bricks of class designation 7.5 or best locally available quality of nominal dimensions as per specification.	CUM	48			
23	1007	Dismantling existing brick work at all level including stacking and removing the debris within a lead of 1Km., including transportation, loading, unloading, etc all complete and as directed by Engineer.	CUM	80			
24	1202	Providing 15mm thick plaster in two layers inside the building in cement mortar 1:4 on walls finished to a smooth finish as per specification.	SQM	320			
		TOTAL AMOUNT FOR CIVIL BOQ IN INDIAN RUPEES (S.NO. 1 TO 24) IN FIGURES AND WORDS					
25		MISCELLANEOUS ITEMS					
		For Item not covered above (s.no. 1 to 24) , quote % above or % below or at par with the CPWD-Schedule (DSR-2002)					
		(i) Rate for complete item					
		(ii) Rate for supply only					
		(iii) Rate for item excluding supply of materials.					

<div><div><div>बीएसईएल</div><div>BHEL</div></div><div>2X250 MW CSEB -KORBA (EAST) TPS UNIT#1&2</div></div>		TITLE :-		BILL OF QUANTITIES (SERVICES)		SPECIFICATION NUMBER
				PACKAGE (LP & CW PIPING-MECHANICAL ERECTION WORKS)		
						VOLUME III REVISION - 02
SL NO.	DESCRIPTION	UNIT	QTY.	RATE (In Indian Rupees)		AMOUNT (In Indian Rupees)
				In figures	In words	
	TENDER NO. - PSER:SCT:KBA-M657:07 (VOL-III) /SERVICES PORTION					
1	Handling from storage, erection, welding, non-destructive testing, inspection, internal cleaning & painting (as per scope), Final painting, testing & commissioing of circulation water Piping and associated material as given in the tender specification. Payment shall be released as per schedule below- 1) Erection - 35%, 2) Alignment - 5%, 3) Welding - 38%, 4) NDT - 10%, 5) Hydraulic test - 5%, 6) Painting completion - 5%, 7) As built drg. submission - 2%.	MT	2,000			
2	Handling from storage, erection, welding, non-destructive testing, inspection, internal cleaning & painting, Final painting, testing & commissioing of other L.P Piping and associated material as given in the tender specification (Carbon steel / non stainless steel piping) . Payment shall be released as per schedule below- 1) Erection - 35%, 2) Alignment - 5%, 3) Welding - 38%, 4) NDT - 10%, 5) Hydraulic test - 5%, 6) Painting completion - 5%, 7) As built drg. submission - 2%.	MT	350			
3	Handling from storage, erection, welding, non-destructive testing, inspection, internal cleaning & painting, Final painting, testing & commissioing of other L.P Piping and associated material as given in the tender specification (Stainless steel piping). Payment shall be released as per schedule below- 1) Erection - 35%, 2) Alignment - 5%, 3) Welding - 38%, 4) NDT - 10%, 5) Hydraulic test - 5%, 6) Painting completion - 5%, 7) As built drg. submission - 2%.	MT	150			

SL NO.	DESCRIPTION	UNIT	QTY.	RATE (In Indian Rupees)		AMOUNT (In Indian Rupees)
				In figures	In words	
	TENDER NO. - PSER:SCT:KBA-M657:07 (VOL-III) /SERVICES PORTION					
4	Handling from storage, Fabrication, Erection, Welding, inspection, fixing/embedding, painting etc. of hangers, supports & structures, misc. supporting material etc. all complete. Payment shall be released as per schedule below- 1) Erection - 60%, 2) Welding - 35%, 3) Painting completion - 3%, 4) As built drg. submission - 2%.	MT	60			
5	Handling from storage, Erection, Welding, inspection, fixing/embedding, painting etc. of RE Joints, Expansion Bellows, Annubars & Flow elements all complete. Payment shall be released as per schedule below- 1) Erection - 60%, 2) Welding - 35%, 3) Painting completion - 3%, 4) As built drg. submission - 2%.	MT	140			
6	Fabrication of Mitre bends, Tees, Reducers of sizes NB 300 and above for LP piping system etc. from straight pipes/plates . Straight pipes/plates will be supplied by BHEL free. Payment shall be released as per schedule below- 1) Fabrication - 95%, 2) Erection - 5%.	MT	200			
7	Supply and application of Coal tar based plasticised pre-fabricated tape of approved brand (Pypkote/ Rustech/ any other BHEL/CSEB approved equivalent) as per IS-10221 appendix - B (Cold application) having minimum thickness of 4 mm (2 layers of 2 mm each) with 12 mm overlapping for all pipe sizes including bends etc. Payment shall be released as per schedule below- 1) Supply - 80%, 2) Application - 20%.	SQM	16,158			
TOTAL AMOUNT FOR MECHANICAL BOQ IN INDIAN RUPEES (S.NO. 1 TO 7) IN FIGURES AND WORDS						
GRAND TOTAL AMOUNT FOR CIVIL & MECHANICAL BOQ IN INDIAN RUPEES IN FIGURES AND WORDS						

