

Unpriced Price Bid Format (Schedule of Quantities & Rates_Price Estimate) Vol. II Rev. 0 dtd. 15.04.2024						
Project Name: IOCL Paradip-Standby SRU (525TPD) Train project, Odisha						
Name of the Work: "Balance Composite Mechanical, Piping, Equipment & Steel Structure works" Works in IOCL Paradip-Standby SRU (525TPD) Train project, Odisha						
1	2	3	4	5	6	8
Section No	Description	UOM	Qty	Amount in Rs.	Weightage %	Remarks
1	Part A: Erection, testing and commissioning of "Mechanical Equipment and Piping" Works (Except painting and Insulation works)	Set	1	₹ 123,782,865	95.5401583%	
2	Part B: Painting and Insulation works	Set	1	₹ 5,778,219	4.4598417%	
	<b>Total (Excluding Taxes)</b>			<b>₹ 129,561,084</b>	<b>100.00 %</b>	
	Bidder to confirm having quoted their price in BHEL NIC portal ( <a href="https://eprocurebhel.co.in">https://eprocurebhel.co.in</a> ) in the manner described in Note: 1 below, by writing "QUOTED" here					
Note:						
1	Bidders should quote only the percentage excess or less, wrt to the estimated value of Rs.12,95,61,084/- - in the specified place in BHEL NIC Portal . They should not fill/quote/write anything in col. of Abstract sheet as well as abstract & individual sub sheets of Section- 1(Part-A) & 2(Part- B). These rates & amount will be derived from the Total amount quoted (percentage excess or less) or weightage factor assigned against respective items indicated in weightage . (Bidder to quote the total price in BHEL NIC portal <a href="https://eprocurebhel.co.in">https://eprocurebhel.co.in</a> )					
2	The rate and amount are inclusive of all applicable taxes, except for the GST. For details of taxes, clause no. 13.0 of the SCC will be applicable.					
3	Evaluation Shall be based on total amount quoted by bidder.					

**Section-1: Part A (Schedule of Quantities & Rates\_Price Estimate):Erection, testing and commissioning of "Mechanical Equipment and Piping" etc Works**

**Name of the work: “Balance Composite Mechanical, Piping, Equipment & Steel Structure works” Works in IOCL Paradip-Standby SRU (525TPD) Train project, Odisha**

Sl No	Description	UOM	Qty	Amount ( in Rs.)	Weightage	Remarks
1	<p><b>Erection, Testing and Commissioning of Piping system:</b> Receipt from BHEL store, transportation to site, inspection, obtaining statutory approvals/ certificates as applicable, pre-assembly, erection, alignment, welding, NDT, fixing of hangers &amp; supports, chemical cleaning / pickling, oil flushing, water flushing, hydro testing &amp; steam blowing including temporary piping and pumps required for testing, surface finish, supply &amp; application of primer &amp; finish paints of all the pipes including pipe fittings and support structures as per requirement / as given in the drawings including labeling &amp; flow direction on the piping / over insulation &amp; hangers and supports, pre-commissioning, commissioning, trial operation &amp; handing over to customer and supply &amp; application of final painting, etc. for all the piping systems of Standby Sulphur Recovery Unit (SRU) Train Of 525 TPD along with Incinerator and Waste Heat Exchanger, Stack and Interconnecting works for IOCL Paradip Refinery, Odisha, India.</p> <p>Note:  1. The contractor has to execute the entire scope of piping works as mentioned in this item and TCC within the quoted rates and against each line item further split and indicated in subsequent Part A_1. Any activity as mentioned here for which separate line item is not available in Part A1 is deemed to be included in the quoted price against the available line item and no separate payment shall be made for such items.  2. Payment for painting works shall be made as per line item no. 2 of Part-B</p>	Set	1	₹ 40,953,504.94	33.0849548 %	As per respective line items of “Unprice Bid Format” Part A-1to5
2	<p><b>Equipment Erection:</b> Erection, Testing, commissioning, trial operation and handing over to customer including receipt, unloading, handling of materials at BHEL stores and transportation to site, supply and application of touch up painting, obtaining statutory approvals/ certificates as applicable of; Reaction furnace package, Incinerator package, Heat exchangers, Vessels, Drums and all other BOS (Balance of Supplies) equipment of Standby Sulphur Recovery Unit (SRU) Train Of 525 TPD along with Incinerator and Waste Heat Exchanger, Stack and Interconnecting works for IOCL Paradip Refinery, Odisha, India.as per technical specifications and approved drawings</p> <p>1. The contractor has to execute the entire scope of Equipment erection works as mentioned in this item and TCC within the quoted rates and against each line item further split and indicated in subsequent Part A_2. Any activity as mentioned here for which separate line item is not available in Part A2 is deemed to be included in the quoted price against the available line item and no separate payment shall be made for such items.</p>	Set	1	₹ 57,164,227.89	46.1810509 %	As per respective line items of “Unprice Bid Format” Part A-1to5
3	<b>Contro® Trace Works</b>	Lot	1	₹ 1,064,421.86	0.8599105 %	As per respective line items of “Unprice Bid Format” Part A-1to5

Sl No	Description	UOM	Qty	Amount ( in Rs.)	Weightage	Remarks
4	<b>Structural Steel Works:</b> Erection, Testing and commissioning of all structural steel works.	Lot	1	21620367.198	17.4663651 %	As per respective line items of “Unprice Bid Format” Part A-1to5
5	<b>Extra Works</b>	Lot		2980343.226	2.4077187 %	As per respective line items of “Unprice Bid Format” Part A-1to5
	<b>Total</b>			₹ 123,782,865.11	100.00 %	

**Part-A\_1to5 (Schedule of Quantities & Rates\_Price Estimate):Erection, testing and commissioning of "Mechanical Equipment and Piping" etc Works: Piping, Equipment Erection, Structural Steel, Contro-tract & Extra Works**

Item No.	Description of Item	Unit	Quantity in contract of original contractor	Quantity executed by original contractor	Quantity to be executed by bidder in the new Tender	Estimated Rate ( in Rs.) of new Tender	Estimated Amount(in Rs.) of the new tender	Weightage %
1	2	3	4	5	6	7	8	9
	<b>Section A-1: PIPING FABRICATION &amp; ERECTION (ABOVE GROUND PIPING):</b>							
1	FABRICATION	Inch-Dia						
1.1	Non IBR Piping						-	
1.1.1	CS Piping Fabrication (Butt Weld), Thickness < 10MM,						-	
i	Pipe size 2" upto 6"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	1984.50	844.000	1140.50	898.68	985,588.08	2%
b	After pre-commissioning, commissioning	Inch-Dia	1984.50	0.000	1984.50	105.73	201,758.73	0.49265314%
c	After punch point completion and handing over	Inch-Dia	1984.50	0.000	1984.50	52.86	100,879.36	0.24632657%
ii	Pipe size 8" upto 14"						-	0.00000000%
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	1624.00	339.000	1285.00	898.68	1,110,460.93	2.71151621%
b	After pre-commissioning, commissioning	Inch-Dia	1624.00	0.000	1624.00	105.73	165,107.67	0.40315883%
c	After punch point completion and handing over	Inch-Dia	1624.00	0.000	1624.00	52.86	82,553.84	0.20157942%
iii	Pipe size 16" upto 24"						-	0.00000000%
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	1990.50	1420.000	570.50	898.68	493,010.08	1.20382879%
b	After pre-commissioning, commissioning	Inch-Dia	1990.50	0.000	1990.50	105.73	202,368.73	0.49414264%
c	After punch point completion and handing over	Inch-Dia	1990.50	0.000	1990.50	52.86	101,184.37	0.24707132%
1.1.2	CS Piping Fabrication (Fillet Weld), Thickness < 10MM,							
i	Less than < 2"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	873.00	253.500	619.50	724.17	431,399.72	1.05338901%
b	After pre-commissioning, commissioning	Inch-Dia	873.00	0.000	873.00	85.20	71,521.05	0.17463962%
c	After punch point completion and handing over	Inch-Dia	873.00	0.000	873.00	42.60	35,760.52	0.08731981%
ii	Slip-on / Socket Welded Flanges							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	9.50	0.000	9.50	724.17	6,615.49	0.01615367%
b	After pre-commissioning, commissioning	Inch-Dia	9.50	0.000	9.50	85.20	778.29	0.00190043%
c	After punch point completion and handing over	Inch-Dia	9.50	0.000	9.50	42.60	389.15	0.00095022%
1.1.3	CS Piping Fabrication (Butt Weld), Thickness > 10 mm & <= 20 mm							
i	Pipe size 2" upto 6"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	200.50	147.000	53.50	1,065.11	54,795.31	0.13379882%
b	After pre-commissioning, commissioning	Inch-Dia	200.50	0.000	200.50	125.31	24,159.34	0.05899211%
c	After punch point completion and handing over	Inch-Dia	200.50	0.000	200.50	62.65	12,079.67	0.02949606%
ii	Pipe size 8" upto 14"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	53.50	0.000	53.50	1,065.11	54,795.31	0.13379882%
b	After pre-commissioning, commissioning	Inch-Dia	53.50	0.000	53.50	125.31	6,446.51	0.01574104%
c	After punch point completion and handing over	Inch-Dia	53.50	0.000	53.50	62.65	3,223.25	0.00787052%
iii	Pipe size 16" upto 24"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	318.50	48.000	270.50	1,065.11	277,049.17	0.67649684%
b	After pre-commissioning, commissioning	Inch-Dia	318.50	0.000	318.50	125.31	38,377.80	0.09371066%
c	After punch point completion and handing over	Inch-Dia	318.50	0.000	318.50	62.65	19,188.90	0.04685533%
iv	Pipe size > 24"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	9946.50	7439.000	2507.50	1,104.32	2,662,754.94	6.50189755%

Item No.	Description of Item	Unit	Quantity in contract of original contractor	Quantity executed by original contractor	Quantity to be executed by bidder in the new Tender	Estimated Rate ( in Rs.) of new Tender	Estimated Amount(in Rs.) of the new tender	Weightage %
b	After pre-commissioning, commissioning	Inch-Dia	9946.50	0.000	9946.50	129.92	1,242,629.38	3.03424428%
c	After punch point completion and handing over	Inch-Dia	9946.50	0.000	9946.50	64.96	621,314.69	1.51712214%
1.1.4	SS Piping Fabrication (Butt Weld), Thickness < 10MM							
i	Pipe size 2" upto 6"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	4.50	0.000	4.50	2,151.08	9,308.16	0.02272861%
b	After pre-commissioning, commissioning	Inch-Dia	4.50	0.000	4.50	253.07	1,095.08	0.00267395%
c	After punch point completion and handing over	Inch-Dia	4.50	0.000	4.50	126.53	547.54	0.00133698%
ii	Pipe size 8" upto 14"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	150.00	0.000	150.00	2,151.08	310,272.11	0.75762040%
b	After pre-commissioning, commissioning	Inch-Dia	150.00	0.000	150.00	253.07	36,502.60	0.08913181%
c	After punch point completion and handing over	Inch-Dia	150.00	0.000	150.00	126.53	18,251.30	0.04456591%
1.1.5	SS Piping Fabrication (Fillet Weld), Thickness < 10MM							
i	Less than < 2"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	15.50	0.750	14.75	1,720.86	24,408.02	0.05959935%
b	After pre-commissioning, commissioning	Inch-Dia	15.50	0.000	15.50	202.45	3,017.54	0.00736822%
c	After punch point completion and handing over	Inch-Dia	15.50	0.000	15.50	101.23	1,508.77	0.00368411%
ii	Slip-on / Socket Welded Flanges							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	1.00	0.000	1.00	1,720.86	1,654.78	0.00404063%
b	After pre-commissioning, commissioning	Inch-Dia	1.00	0.000	1.00	202.45	194.68	0.00047537%
c	After punch point completion and handing over	Inch-Dia	1.00	0.000	1.00	101.23	97.34	0.00023768%
1.2	IBR Piping							
1.2.1	Alloy Steel Pipe Fabrication (Butt Weld), Thickness < 10MM							
i	Pipe size 2" upto 6"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	10.50	0.000	10.50	2,358.40	23,812.36	0.05814485%
b	After pre-commissioning, commissioning	Inch-Dia	10.50	0.000	10.50	277.46	2,801.45	0.00684057%
c	After punch point completion and handing over	Inch-Dia	10.50	0.000	10.50	138.73	1,400.73	0.00342029%
1.2.2	Alloy Steel Piping Fabrication (Fillet Weld), Thickness < 10MM							
i	Less than < 2"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	10.50	0.000	10.50	1,886.72	19,049.87	0.04651584%
b	After pre-commissioning, commissioning	Inch-Dia	10.50	0.000	10.50	221.97	2,241.16	0.00547245%
c	After punch point completion and handing over	Inch-Dia	10.50	0.000	10.50	110.98	1,120.58	0.00273623%
ii	Slip-on / Socket Welded Flanges							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	1.00	0.000	1.00	1,886.72	1,814.27	0.00443008%
b	After pre-commissioning, commissioning	Inch-Dia	1.00	0.000	1.00	221.97	213.44	0.00052119%
c	After punch point completion and handing over	Inch-Dia	1.00	0.000	1.00	110.98	106.72	0.00026059%
1.2.3	Alloy Steel Piping Fabrication (Butt Weld), Thickness > 10 mm & <= 20 mm							
i	Pipe size 8" upto 14"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	84.00	0.000	84.00	2,747.37	221,917.60	0.54187695%
b	After pre-commissioning, commissioning	Inch-Dia	84.00	0.000	84.00	323.22	26,107.95	0.06375023%
c	After punch point completion and handing over	Inch-Dia	84.00	0.000	84.00	161.61	13,053.98	0.03187511%
1.2.4	CS Piping Fabrication (Butt Weld), Thickness < 10MM,							
i	Pipe size 2" upto 6"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	642.50	0.000	642.50	1,004.84	620,817.05	1.51590701%
b	After pre-commissioning, commissioning	Inch-Dia	642.50	0.000	642.50	118.22	73,037.30	0.17834200%
c	After punch point completion and handing over	Inch-Dia	642.50	0.000	642.50	59.11	36,518.65	0.08917100%

Item No.	Description of Item	Unit	Quantity in contract of original contractor	Quantity executed by original contractor	Quantity to be executed by bidder in the new Tender	Estimated Rate ( in Rs.) of new Tender	Estimated Amount(in Rs.) of the new tender	Weightage %
ii	Pipe size 8" upto 14"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	767.50	0.000	767.50	1,004.84	741,598.58	1.81083055%
b	After pre-commissioning, commissioning	Inch-Dia	767.50	0.000	767.50	118.22	87,246.89	0.21303889%
c	After punch point completion and handing over	Inch-Dia	767.50	0.000	767.50	59.11	43,623.45	0.10651944%
iii	Pipe size 16" upto 24"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	1875.75	0.000	1875.75	1,004.84	1,812,447.60	4.42562268%
b	After pre-commissioning, commissioning	Inch-Dia	1875.75	0.000	1875.75	118.22	213,229.13	0.52066149%
c	After punch point completion and handing over	Inch-Dia	1875.75	0.000	1875.75	59.11	106,614.56	0.26033075%
1.2.5	CS Piping Fabrication (Fillet Weld), Thickness < 10MM,							
i	Less than < 2"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	315.50	0.000	315.50	803.87	243,882.58	0.59551088%
b	After pre-commissioning, commissioning	Inch-Dia	315.50	0.000	315.50	94.57	28,692.07	0.07006010%
c	After punch point completion and handing over	Inch-Dia	315.50	0.000	315.50	47.29	14,346.03	0.03503005%
ii	Slip-on / Socket Welded Flanges							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	5.50	0.000	5.50	803.87	4,251.52	0.01038133%
b	After pre-commissioning, commissioning	Inch-Dia	5.50	0.000	5.50	94.57	500.18	0.00122133%
c	After punch point completion and handing over	Inch-Dia	5.50	0.000	5.50	47.29	250.09	0.00061067%
1.2.6	CS Piping Fabrication (Butt Weld), Thickness > 10 mm & < = 20 mm							
i	Pipe size 2" upto 6"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	621.00	0.000	621.00	1,283.30	766,326.35	1.87121066%
b	After pre-commissioning, commissioning	Inch-Dia	621.00	0.000	621.00	150.98	90,156.04	0.22014243%
c	After punch point completion and handing over	Inch-Dia	621.00	0.000	621.00	75.49	45,078.02	0.11007122%
ii	Pipe size 8" upto 14"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	561.00	0.000	561.00	1,283.30	692,285.16	1.69041736%
b	After pre-commissioning, commissioning	Inch-Dia	561.00	0.000	561.00	150.98	81,445.31	0.19887263%
c	After punch point completion and handing over	Inch-Dia	561.00	0.000	561.00	75.49	40,722.66	0.09943632%
iii	Pipe size 16" upto 24"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	379.00	0.000	379.00	1,283.30	467,693.54	1.14201102%
b	After pre-commissioning, commissioning	Inch-Dia	379.00	0.000	379.00	150.98	55,022.77	0.13435424%
c	After punch point completion and handing over	Inch-Dia	379.00	0.000	379.00	75.49	27,511.38	0.06717712%
1.3	Erection of Pipes for various types of material and thickness							
i	Less than < 2"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-meter	4697.00	1.793	4695.21	327.97	1,480,769.61	3.61573353%
b	After pre-commissioning, commissioning	Inch-meter	4697.00	0.000	4697.00	38.59	174,274.72	0.42554286%
c	After punch point completion and handing over	Inch-meter	4697.00	0.000	4697.00	19.29	87,137.36	0.21277143%
ii	2" upto 6"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-meter	12347.00	4621.623	7725.38	327.97	2,436,421.54	5.94923816%
b	After pre-commissioning, commissioning	Inch-meter	12347.00	0.000	12347.00	38.59	458,115.80	1.11862416%
c	After punch point completion and handing over	Inch-meter	12347.00	0.000	12347.00	19.29	229,057.90	0.55931208%
iii	8" upto 14"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-meter	11473.50	3670.454	7803.05	320.99	2,408,490.29	5.88103581%
b	After pre-commissioning, commissioning	Inch-meter	11473.50	0.000	11473.50	37.76	416,636.90	1.01734124%
c	After punch point completion and handing over	Inch-meter	11473.50	0.000	11473.50	18.88	208,318.45	0.50867062%
iv	16" upto 24"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-meter	10102.50	6137.168	3965.33	320.99	1,223,940.45	2.98860977%

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b	After pre-commissioning, commissioning	Inch-meter	10102.50	0.000	10102.50	37.76	366,851.81	0.89577635%
c	After punch point completion and handing over	Inch-meter	10102.50	0.000	10102.50	18.88	183,425.91	0.44788817%
v	More than > 24"							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-meter	35223.75	30100.604	5123.15	315.32	1,553,416.83	3.79312305%
b	After pre-commissioning, commissioning	Inch-meter	35223.75	0.000	35223.75	37.52	1,270,679.02	3.10273570%
c	After punch point completion and handing over	Inch-meter	35223.75	0.000	35223.75	18.76	635,339.51	1.55136785%
2	Valve Erection: all Types							
2.1	Size- Less than 2"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	1118.50	13.000	1105.50	729.23	775,210.74	1.89290452%
b	After pre-commissioning, commissioning	Nos	1118.50	0.000	1118.50	85.79	92,273.73	0.22531340%
c	After punch point completion and handing over	Nos	1118.50	0.000	1118.50	42.90	46,136.87	0.11265670%
2.2	Size-2"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	253.00	0.000	253.00	1,135.33	276,208.59	0.67444434%
b	After pre-commissioning, commissioning	Nos	253.00	0.000	253.00	133.57	32,495.13	0.07934639%
c	After punch point completion and handing over	Nos	253.00	0.000	253.00	66.78	16,247.56	0.03967320%
2.3	Size-3"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	151.00	0.000	151.00	1,385.36	201,157.47	0.49118499%
b	After pre-commissioning, commissioning	Nos	151.00	0.000	151.00	162.98	23,665.58	0.05778647%
c	After punch point completion and handing over	Nos	151.00	0.000	151.00	81.49	11,832.79	0.02889323%
2.4	Size-4"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	98.00	0.000	98.00	1,638.31	154,389.12	0.37698633%
b	After pre-commissioning, commissioning	Nos	98.00	0.000	98.00	192.74	18,163.43	0.04435133%
c	After punch point completion and handing over	Nos	98.00	0.000	98.00	96.37	9,081.71	0.02217567%
2.5	Size-6"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	83.00	0.000	83.00	2,141.35	170,907.80	0.41732154%
b	After pre-commissioning, commissioning	Nos	83.00	0.000	83.00	251.92	20,106.80	0.04909665%
c	After punch point completion and handing over	Nos	83.00	0.000	83.00	125.96	10,053.40	0.02454833%
2.6	Size-8"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	24.00	3.000	21.00	3,385.38	68,363.15	0.16692868%
b	After pre-commissioning, commissioning	Nos	24.00	0.000	24.00	398.28	9,191.68	0.02244419%
c	After punch point completion and handing over	Nos	24.00	0.000	24.00	199.14	4,595.84	0.01122210%
2.7	Size-10"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	29.00	0.000	29.00	4,104.02	114,446.60	0.27945496%
b	After pre-commissioning, commissioning	Nos	29.00	0.000	29.00	482.83	13,464.31	0.03287705%
c	After punch point completion and handing over	Nos	29.00	0.000	29.00	241.41	6,732.15	0.01643853%
2.8	Size-12"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	4.00	0.000	4.00	4,650.13	17,886.29	0.04367463%
b	After pre-commissioning, commissioning	Nos	4.00	0.000	4.00	547.07	2,104.27	0.00513819%
c	After punch point completion and handing over	Nos	4.00	0.000	4.00	273.54	1,052.13	0.00256910%
2.9	Size-14"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	0.50	0.000	0.50	6,302.82	3,030.40	0.00739961%
b	After pre-commissioning, commissioning	Nos	0.50	0.000	0.50	741.51	356.52	0.00087054%
c	After punch point completion and handing over	Nos	0.50	0.000	0.50	370.75	178.26	0.00043527%
2.10	Size-16"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	6.50	2.000	4.50	6,655.72	28,800.69	0.07032534%

Item No.	Description of Item	Unit	Quantity in contract of original contractor	Quantity executed by original contractor	Quantity to be executed by bidder in the new Tender	Estimated Rate ( in Rs.) of new Tender	Estimated Amount(in Rs.) of the new tender	Weightage %
b	After pre-commissioning, commissioning	Nos	6.50	0.000	6.50	783.03	4,894.24	0.01195071%
c	After punch point completion and handing over	Nos	6.50	0.000	6.50	391.51	2,447.12	0.00597536%
2.11	Size-18"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	2.00	0.000	2.00	6,655.72	12,800.31	0.03125571%
b	After pre-commissioning, commissioning	Nos	2.00	0.000	2.00	783.03	1,505.92	0.00367714%
c	After punch point completion and handing over	Nos	2.00	0.000	2.00	391.51	752.96	0.00183857%
2.12	Size-20"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	4.00	0.000	4.00	7,008.62	26,958.02	0.06582593%
b	After pre-commissioning, commissioning	Nos	4.00	0.000	4.00	824.54	3,171.53	0.00774423%
c	After punch point completion and handing over	Nos	4.00	0.000	4.00	412.27	1,585.77	0.00387211%
2.13	Size-24"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	2.00	0.000	2.00	7,326.24	14,089.86	0.03440453%
b	After pre-commissioning, commissioning	Nos	2.00	0.000	2.00	861.91	1,657.63	0.00404759%
c	After punch point completion and handing over	Nos	2.00	0.000	2.00	430.96	828.82	0.00202380%
2.14	Size-28"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	0.50	0.000	0.50	12,879.91	6,192.67	0.01512123%
b	After pre-commissioning, commissioning	Nos	0.50	0.000	0.50	1,515.28	728.55	0.00177897%
c	After punch point completion and handing over	Nos	0.50	0.000	0.50	757.64	364.27	0.00088948%
2.15	Size-30"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	1.00	0.000	1.00	13,125.93	12,621.92	0.03082012%
b	After pre-commissioning, commissioning	Nos	1.00	0.000	1.00	1,544.23	1,484.93	0.00362590%
c	After punch point completion and handing over	Nos	1.00	0.000	1.00	772.11	742.47	0.00181295%
2.16	Size-36"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	4.00	1.000	3.00	13,548.67	39,085.28	0.09543817%
b	After pre-commissioning, commissioning	Nos	4.00	0.000	4.00	1,593.96	6,131.02	0.01497069%
c	After punch point completion and handing over	Nos	4.00	0.000	4.00	796.98	3,065.51	0.00748535%
2.17	Size-44"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	0.50	0.000	0.50	17,796.99	8,556.81	0.02089397%
b	After pre-commissioning, commissioning	Nos	0.50	0.000	0.50	2,093.76	1,006.68	0.00245811%
c	After punch point completion and handing over	Nos	0.50	0.000	0.50	1,046.88	503.34	0.00122906%
2.18	Size-48"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	4.00	2.000	2.00	14,013.69	26,951.18	0.06580920%
b	After pre-commissioning, commissioning	Nos	4.00	0.000	4.00	1,648.67	6,341.45	0.01548452%
c	After punch point completion and handing over	Nos	4.00	0.000	4.00	824.33	3,170.73	0.00774226%
3	NDT Works							
3.1	Radiography for pipe joints as per specification of various sizes and material							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	1784.10	4106.250	0.00	249.26	0.00	0.00000000%
b	After pre-commissioning, commissioning	Inch-Dia	1784.10	0.000	4106.25	29.33	120415.78	0.29403047%
c	After punch point completion and handing over	Inch-Dia	1784.10	0.000	4106.25	14.66	60207.89	0.14701523%
3.2	Stress Relieving (PWHT) for pipe joints as per specification							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	23334.00	5147.000	18187.00	284.10	4,968,447.90	12.13192353%
b	After pre-commissioning, commissioning	Inch-Dia	23334.00	0.000	23334.00	33.42	749,945.91	1.83121301%
c	After punch point completion and handing over	Inch-Dia	23334.00	0.000	23334.00	16.71	374,972.96	0.91560650%
3.3	Ultrasonic Textstg/ MP for pipe joints as per specification							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-Dia	50.00	0.000	50.00	262.79	12,635.18	0.03085251%



[illegible]

Item No.	Description of Item	Unit	Quantity in contract of original contractor	Quantity executed by original contractor	Quantity to be executed by bidder in the new Tender	Estimated Rate ( in Rs.) of new Tender	Estimated Amount(in Rs.) of the new tender	Weightage %
1	Equipment Erection-Static						-	
2	Handling and transportation of Rotating Equipment & miscellaneous items of equipment package from Owner's storage points to ..... (ii) Equipment also include all types of Drums, seal pots etc. (iii) Includes hyderotesting, chemical cleaning all inclusive)						-	
3	Equipment weighing less than 100 MT but 50 MT and above							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	112.30	0.000	112.30	26,543.01	2,980,779.52	11.21914076%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	112.30	0.000	112.30	14,478.00	1,625,879.74	6.11953132%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	112.30	0.000	112.30	4,826.00	541,959.91	2.03984377%
d	Punch point Completion & Hand over	MT	112.30	0.000	112.30	2,413.00	270,979.96	1.01992189%
4	Equipment weighing less than 50 MT but 30 MT and above							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	60.00	0.000	60.00	20,919.50	1,255,170.18	4.72424439%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	60.00	0.000	60.00	11,410.64	684,638.28	2.57686058%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	60.00	0.000	60.00	3,803.55	228,212.76	0.85895353%
d	Punch point Completion & Hand over	MT	60.00	0.000	60.00	1,901.77	114,106.38	0.42947676%
5	Equipment weighing less than 30 MT but 10 MT and above							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	79.70	34.179	45.52	18,776.32	854,716.77	3.21700673%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	79.70	34.179	45.52	10,241.63	466,209.15	1.75473094%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	79.70	0.000	79.70	3,413.88	272,085.92	1.02408453%
d	Punch point Completion & Hand over	MT	79.70	0.000	79.70	1,706.94	136,042.96	0.51204227%
6	Equipment weighing less than 10 MT							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	108.55	34.096	74.45	15,736.01	1,171,609.00	4.40973450%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	108.55	34.096	74.45	8,583.28	639,059.45	2.40530973%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	108.55	0.000	108.55	2,861.09	310,571.65	1.16893819%
d	Punch point Completion & Hand over	MT	108.55	0.000	108.55	1,430.55	155,285.82	0.58446909%
7	Equipment Erection- Rotating							
8	Handling and transportation of Rotating Equipment & miscellaneous items of equipment package from Owner's storage points to work site / contractor's stores, assembly of (as applicable), & dressing of foundations, grouting .....							
10	All Types of Pumps (Electric Motor Driven) along with driver, auxiliaries and accessories (Single Skid).							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	29.00	18.972	10.03	20,845.42	209,037.91	0.78678268%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	29.00	9.402	19.60	11,370.23	222,833.79	0.83870800%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	29.00	0.000	29.00	3,790.08	109,912.23	0.41369072%
d	Punch point Completion & Hand over	MT	29.00	0.000	29.00	1,895.04	54,956.12	0.20684536%
11	Equipment Erection-Critical							
12	Transportation of equipment/equipment internals from owner's storage point to work site, ..... the Engineer-in-Charge & supervision of Equipment supplier. .							
13	Erection/Installation of Reactor and Internals of (088-R-001)							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	85.00	54.400	30.60	68,639.55	2,100,370.37	7.90543234%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	85.00	54.400	30.60	37,439.76	1,145,656.56	4.31205400%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	85.00	0.000	85.00	12,479.92	1,060,793.12	3.99264260%
d	Punch point Completion & Hand over	MT	85.00	0.000	85.00	6,239.96	530,396.56	1.99632130%
14	Erection/Installation of Reactor and Internals of Reactor (088-R-002)							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	85.00	54.400	30.60	68,639.55	2,100,370.37	7.90543234%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	85.00	54.400	30.60	37,439.76	1,145,656.56	4.31205400%

Item No.	Description of Item	Unit	Quantity in contract of original contractor	Quantity executed by original contractor	Quantity to be executed by bidder in the new Tender	Estimated Rate ( in Rs.) of new Tender	Estimated Amount(in Rs.) of the new tender	Weightage %
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	85.00	0.000	85.00	12,479.92	1,060,793.12	3.99264260%
d	Punch point Completion & Hand over	MT	85.00	0.000	85.00	6,239.96	530,396.56	1.99632130%
15	Erection/Installation of Degassing Contactot Column and Internals of Column (088-C-001)							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	35.00	27.000	8.00	68,639.55	549,116.44	2.06677970%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	35.00	27.000	8.00	37,439.76	299,518.06	1.12733438%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	35.00	0.000	35.00	12,479.92	436,797.17	1.64402930%
d	Punch point Completion & Hand over	MT	35.00	0.000	35.00	6,239.96	218,398.58	0.82201465%
16	Erection/Installation Amine Acid Gas preheater (088-E-001)							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	16.00	16.000	0.00	21,353.15	-	0.00000000%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	16.00	16.000	0.00	11,647.17	-	0.00000000%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	16.00	0.000	16.00	3,882.39	62,118.24	0.23380236%
d	Punch point Completion & Hand over	MT	16.00	0.000	16.00	1,941.20	31,059.12	0.11690118%
17	Erection/Installation Air Preheater (088-E-002)							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	25.00	22.000	3.00	21,353.15	64,059.44	0.24110868%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	25.00	22.000	3.00	11,647.17	34,941.51	0.13151383%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	25.00	0.000	25.00	3,882.39	97,059.75	0.36531618%
d	Punch point Completion & Hand over	MT	25.00	0.000	25.00	1,941.20	48,529.88	0.18265809%
18	Erection/Installation 1st Condenser (088-E-003)							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	40.00	47.055	0.00	21,353.15	0.00	0.00000000%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	40.00	47.055	0.00	11,647.17	0.00	0.00000000%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	40.00	0.000	47.06	3,882.39	182705.27	0.68767118%
d	Punch point Completion & Hand over	MT	40.00	0.000	47.06	1,941.20	91352.64	0.34383559%
19	Erection/Installation 1st Reheater (088-E-004)							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	42.00	29.730	12.27	21,353.15	262,003.09	0.98613451%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	42.00	29.730	12.27	11,647.17	142,910.78	0.53789155%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	42.00	0.000	42.00	3,882.39	163,060.38	0.61373119%
d	Punch point Completion & Hand over	MT	42.00	0.000	42.00	1,941.20	81,530.19	0.30686559%
20	Erection/Installation 2nd Condenser (088-E-005)							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	40.00	46.000	0.00	21,353.15	0.00	0.00000000%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	40.00	46.000	0.00	11,647.17	0.00	0.00000000%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	40.00	0.000	46.00	3,882.39	178589.94	0.67218178%
d	Punch point Completion & Hand over	MT	40.00	0.000	46.00	1,941.20	89294.97	0.33609089%
21	Erection/Installation 2nd Reheater (088-E-006)							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	43.00	29.730	13.27	21,353.15	283,356.23	1.06650407%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	43.00	29.730	13.27	11,647.17	154,557.95	0.58172949%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	43.00	0.000	43.00	3,882.39	166,942.77	0.62834384%
d	Punch point Completion & Hand over	MT	43.00	0.000	43.00	1,941.20	83,471.39	0.31417192%
22	Erection/Installation Final Condenser (088-E-007)							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	50.00	92.000	0.00	21,353.15	0.00	0.00000000%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	50.00	92.000	0.00	11,647.17	0.00	0.00000000%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	50.00	0.000	92.00	3,882.39	357179.88	1.34436355%
d	Punch point Completion & Hand over	MT	50.00	0.000	92.00	1,941.20	178589.94	0.67218178%
23	Erection/Installation BFW Preheater (088-E-008)							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	1.50	2.200	0.00	21,353.15	0.00	0.00000000%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	1.50	2.200	0.00	11,647.17	0.00	0.00000000%

Item No.	Description of Item	Unit	Quantity in contract of original contractor	Quantity executed by original contractor	Quantity to be executed by bidder in the new Tender	Estimated Rate ( in Rs.) of new Tender	Estimated Amount(in Rs.) of the new tender	Weightage %
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	1.50	0.000	2.20	3,882.39	8541.26	0.03214782%
d	Punch point Completion & Hand over	MT	1.50	0.000	2.20	1,941.20	4270.63	0.01607391%
24	Erection/Installation Sulphur Cooler (088-E-009)							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	2.50	4.030	0.00	21,310.90	0.00	0.00000000%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	2.50	4.030	0.00	11,624.13	0.00	0.00000000%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	2.50	0.000	4.03	3,874.71	15615.08	0.05877246%
d	Punch point Completion & Hand over	MT	2.50	0.000	4.03	1,937.35	7807.54	0.02938623%
25	Erection/Installation Condensate Drum Vent Condenser (088-AC-001)							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	12.50	14.000	0.00	21,353.15	0.00	0.00000000%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	12.50	14.000	0.00	11,647.17	0.00	0.00000000%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	12.50	0.000	14.00	3,882.39	54353.46	0.20457706%
d	Punch point Completion & Hand over	MT	12.50	0.000	14.00	1,941.20	27176.73	0.10228853%
26	Erection/Installation Blowdown Cooler (088-AC-002)							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	8.50	15.000	0.00	21,310.90	0.00	0.00000000%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	8.50	15.000	0.00	11,624.13	0.00	0.00000000%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	8.50	0.000	15.00	3,874.71	58120.64	0.21875606%
d	Punch point Completion & Hand over	MT	8.50	0.000	15.00	1,937.35	29060.32	0.10937803%
27	Erection/Installation SULFUR PIT EJECTORS (088-EJ-01A/B							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	MT	1.80	2.360		21,310.90	0.00	0.00000000%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	MT	1.80	0.000	2.36	11,624.13	27432.94	0.10325286%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	MT	1.80	0.000	2.36	3,874.71	9144.31	0.03441762%
d	Punch point Completion & Hand over	MT	1.80	0.000	2.36	1,937.35	4572.16	0.01720881%
28	Installation of Hook Mounted Chain Pulley Block							
29	Transportation of Equipment from Owner's store/Contractor's store to work site. Assembly of .....							
30	Chain Pulley Block Capacity- Upto 10 MT							
a	Preparation of Foundation , within Site transportation & Placement on Foundation	Nos	9.00	0.000	9.00	5,315.30	47,837.74	0.18005302%
b	Alignment , Welding / Jointing , Gouting , Bolting , NDT	Nos	9.00	0.000	9.00	2,899.26	26,093.31	0.09821074%
c	Interface Support , Touch Paint , Precommissioning & Commissioning	Nos	9.00	0.000	9.00	966.42	8,697.77	0.03273691%
d	Punch point Completion & Hand over	Nos	9.00	0.000	9.00	483.21	4,348.89	0.01636846%
	<b>Total A2(a)</b>						<b>26,568,697.04</b>	<b>100.00000000%</b>
4	<b>Incinerator Stack Fabrication, welding, radiography, PWHT at site: Testing and commissioning of Incinerator stack including Fabrication, welding, radiography, touch up painting (Approx 71Mtr Height) as per TCC</b>							
1	Preparation of Foundation , within Site transportation & Placement on Foundation	Nos	200.00	166.400	33.60	20,419.66	686,100.68	31.55737705%
a	Alignment , Welding / Jointing , Gouting , Bolting , NDT	Nos	200.00	166.400	33.60	11,138.00	374,236.73	17.21311475%
b	Interface Support , Touch Paint , Precommissioning & Commissioning	Nos	200.00	0.000	200.00	3,712.67	742,533.20	34.15300546%
c	Punch point Completion & Hand over	Nos	200.00	0.000	200.00	1,856.33	371,266.60	17.07650273%
	<b>Total</b>						<b>2,174,137.21</b>	<b>100.00000000%</b>
	<b>Section A 3-Price :: Contro Trace Works</b>							

Item No.	Description of Item	Unit	Quantity in contract of original contractor	Quantity executed by original contractor	Quantity to be executed by bidder in the new Tender	Estimated Rate ( in Rs.) of new Tender	Estimated Amount(in Rs.) of the new tender	Weightage %
1	Installation, testing, and commissioning of Contro Trace® bolt on heating system as per BHEL approved drawings, instructions of BHEL site engineer and under supervision of							
a	After fabrication, erection, NDT touchup painting, Testing	Inch-meter	13499.33	0.000	13499.33	67.02	904,758.58	85.00000000%
b	After pre-commissioning, commissioning	Inch-meter	13499.33	0.000	13499.33	7.89	106,442.19	10.00000000%
c	After punch point completion and handing over	Inch-meter	13499.33	0.000	13499.33	3.94	53,221.09	5.00000000%
	<b>Total</b>						<b>1,064,421.86</b>	<b>100.00000000%</b>
<b>Section-A4_Price:: Structural steel and associated works</b>								
1	Dismantling concrete work for all types of structures at all levels including stacking of servicable material to a lead of 500 m and disposal of unservicable material upto a lead of 2 km, .....							
1.1	Plain cement concrete of all grades							
a	After fabrication, erection, NDT touchup painting, Testing	CUM	10.00	0.000	10.00	1,204.60	12,046.03	0.05571612%
b	After pre-commissioning, commissioning	CUM	10.00	0.000	10.00	141.72	1,417.18	0.00655484%
c	After punch point completion and handing over	CUM	10.00	0.000	10.00	70.86	708.59	0.00327742%
1.2	Reinforced cement concrete of all grades							
a	After fabrication, erection, NDT touchup painting, Testing	CUM	50.00	0.000	50.00	1,746.84	87,342.18	0.40398100%
b	After pre-commissioning, commissioning	CUM	50.00	0.000	50.00	205.51	10,275.55	0.04752718%
c	After punch point completion and handing over	CUM	50.00	0.000	50.00	102.76	5,137.78	0.02376359%
2	<b>GROUTING: Grouting including all labour, material (unless otherwise specified in BOQ/contract specification), .....</b>							
2.1	Providing & grouting of pocket holes, pipe sleeves under base plates, machinery, pipe supporting structures etc. with mix 1:1 (1 cement :1 sand ) using non shrink admixture etc. all Complete.							
a	After fabrication, erection, NDT touchup painting, Testing	CUM	1.00	0.000	1.00	17,482.90	17,482.90	0.08086311%
b	After pre-commissioning, commissioning	CUM	1.00	0.000	1.00	2,056.81	2,056.81	0.00951331%
c	After punch point completion and handing over	CUM	1.00	0.000	1.00	1,028.41	1,028.41	0.00475665%
2.2	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, .....							
a	After fabrication, erection, NDT touchup painting, Testing	CUM	1.00	0.000	1.00	16,396.94	16,396.94	0.07584026%
b	After pre-commissioning, commissioning	CUM	1.00	0.000	1.00	1,929.05	1,929.05	0.00892238%
c	After punch point completion and handing over	CUM	1.00	0.000	1.00	964.53	964.53	0.00446119%
2.3	Providing & grouting of pocket holes, pipe sleeves and under base plates of structural steel work/ machinery/ .....							
a	After fabrication, erection, NDT touchup painting, Testing	CUM	4.00	0.000	4.00	39,339.67	157,358.70	0.72782620%
b	After pre-commissioning, commissioning	CUM	4.00	0.000	4.00	4,628.20	18,512.79	0.08562661%
c	After punch point completion and handing over	CUM	4.00	0.000	4.00	2,314.10	9,256.39	0.04281331%
2.4	Providing & grouting of pocket holes, pipe sleeves and under base plates of structural steel work/ machinery/ .....							
a	After fabrication, erection, NDT touchup painting, Testing	CUM	2.00	15.681	0.00	42,385.28	0.00	0.00000000%
b	After pre-commissioning, commissioning	CUM	2.00	0.000	15.68	4,986.50	78,188.38	0.36164225%
c	After punch point completion and handing over	CUM	2.00	0.000	15.68	2,493.25	39,094.19	0.18082113%
3	ROOFING / SIDE CLADDING: Roofing / side cladding work including all labour, material (unless otherwise specified in .....							

Item No.	Description of Item	Unit	Quantity in contract of original contractor	Quantity executed by original contractor	Quantity to be executed by bidder in the new Tender	Estimated Rate ( in Rs.) of new Tender	Estimated Amount(in Rs.) of the new tender	Weightage %
3.1	Designing, providing and fixing External sheet of Permanent colour coated metal cladding with troughed M.S. sheets of 0.8mm bare metal thickness having minimum yield strength 250 MPa .....							
a	After fabrication, erection, NDT touchup painting, Testing	Sqm	20.00	0.000	20.00	1,122.15	22,443.06	0.10380517%
b	After pre-commissioning, commissioning	Sqm	20.00	0.000	20.00	132.02	2,640.36	0.01221237%
c	After punch point completion and handing over	Sqm	20.00	0.000	20.00	66.01	1,320.18	0.00610619%
4	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 .....							
4.1	Supply, Fabrication,erection and alignment of structural steel of Grade E250 quality BR / B0 rolled section / .....							
a	After fabrication, erection, NDT touchup painting, Testing	MT	50.00	17.695	0.00	101,215.96	-	0.00000000%
b	After pre-commissioning, commissioning	MT	50.00	0.000	17.70	11,907.76	210,767.35	0.97485556%
c	After punch point completion and handing over	MT	50.00	0.000	17.70	5,953.88	105,383.68	0.48742778%
4.2	Supply, Fabrication,erection and alignment of structural steel of tubular/ hollow steel sections shall be of grade yst 310 conforming to is:1161 (for circular hollow sections (chs) (shs).....							
a	After fabrication, erection, NDT touchup painting, Testing	MT	20.00	0.000	20.00	101,215.96	2,024,319.20	9.36301952%
b	After pre-commissioning, commissioning	MT	20.00	0.000	20.00	11,907.76	238,155.20	1.10153171%
c	After punch point completion and handing over	MT	20.00	0.000	20.00	5,953.88	119,077.60	0.55076585%
4.3	Taking delivery of structural elements from BHEL stores / store yard, loading, transportation, unloading, Erection and alignment of structural steel of Grade E250 quality BR / B0 rolled .....							
a	After fabrication, erection, NDT touchup painting, Testing	MT	1236.00	1494.812	150.00	22,163.07	3,324,460.50	15.37652191%
b	After pre-commissioning, commissioning	MT	1236.00	0.000	1644.81	2,607.42	4,288,710.49	19.83643687%
c	After punch point completion and handing over	MT	1236.00	0.000	1644.81	1,303.71	2,144,355.25	9.91821843%
4.4	Extra over ST NO. 2301-A & 2301-B for blast cleaning of steel structures to near white metal surface (Sa 2 1/2 ) and Two component Inorganic Zinc Silicate coating of miniumm 75 micron (DFT) at shop, ...							
a	After fabrication, erection, NDT touchup painting, Testing	MT	70.00	14.878		6,720.41	-	0.00000000%
b	After pre-commissioning, commissioning	MT	70.00	0.000	14.88	790.64	11,764.68	0.05441480%
c	After punch point completion and handing over	MT	70.00	0.000	14.88	395.32	5,882.34	0.02720740%
4.5	Providing and applying High Build Epoxy finish coating cured with polyamine hardener of 150 micron at shop and two component Acrylic – Polyurethane finish paint (35 micron at shop & 40 micron at field) ...							
a	After fabrication, erection, NDT touchup painting, Testing	MT	70.00	14.878	0.00	3,827.03	-	0.00000000%
b	After pre-commissioning, commissioning	MT	70.00	0.000	14.88	450.24	6,699.56	0.03098725%
c	After punch point completion and handing over	MT	70.00	0.000	14.88	225.12	3,349.78	0.01549362%
4.6	Providing and applying two component Acrylic – Polyurethane finish paint (40 micron at field) over already painted surface ...							
a	After fabrication, erection, NDT touchup painting, Testing	MT	1300.00	0.000	1645.00	2,041.09	3,357,589.76	15.52975363%
b	After pre-commissioning, commissioning	MT	1300.00	0.000	1645.00	240.13	395,010.56	1.82702984%
c	After punch point completion and handing over	MT	1300.00	0.000	1645.00	120.06	197,505.28	0.91351492%
4.7	Supplying, fabrication, erection and alignment of factory made electroforged galvanised grating units with mild steel having minimum galvanisation conforming to IS:2062 in ...							
4.7.1	Minimum galvanisation of 900 g/sqm							
a	Supply ( Receipt at Site )	MT	21.00	20.125	3.00	90,528.69	271,586.07	1.25615845%
b	Fabrication & Erection	MT	21.00	16.271	6.86	37,720.29	258,723.45	1.19666539%

Item No.	Description of Item	Unit	Quantity in contract of original contractor	Quantity executed by original contractor	Quantity to be executed by bidder in the new Tender	Estimated Rate ( in Rs.) of new Tender	Estimated Amount(in Rs.) of the new tender	Weightage %
c	Touch up paint , Precommissioning & Commissioning	MT	21.00	0.000	6.86	15,088.12	103,489.38	0.47866616%
d	Punch Point Completion & Hand over	MT	21.00	0.000	6.86	7,544.06	51,744.69	0.23933308%
4.8	Providing and fixing in positing of High Strength Structural Steel Bolts of Property Class 8.8 (minimum) conforming to IS:3757 & IS:4000 up to and inclusive of 39 mm diameter and upto 300 mm long.							
a	After fabrication, erection, NDT touchup painting, Testing	KG	1000.00	4945.000	1500.00	148.27	222411.00	1.02871056%
b	After pre-commissioning, commissioning	KG	1000.00	0.000	6445.00	17.44	112426.58	0.52000310%
c	After punch point completion and handing over	KG	1000.00	0.000	6445.00	8.72	56213.29	0.26000155%
4.9	Providing and fixing in positing of High Strength Structural Steel Bolts of Property Class 10.9 conforming to IS:3757 & .....							
a	After fabrication, erection, NDT touchup painting, Testing	KG	10.00	0.000	1.00	163.11	163.11	0.00075441%
b	After pre-commissioning, commissioning	KG	10.00	0.000	1.00	19.19	191.89	0.00088754%
c	After punch point completion and handing over	KG	10.00	0.000	1.00	9.59	95.95	0.00044377%
4.10	Dismantling of steel structure, lowering of material and carriage of the dismantled material up to field fabrication shop / projects storage including temporary dismantling, cutting,....							
a	After fabrication, erection, NDT touchup painting, Testing	MT	50.00	1.558		8,495.21	-	0.00000000%
b	After pre-commissioning, commissioning	MT	50.00	0.000	1.56	999.44	1,559.12	0.00721136%
c	After punch point completion and handing over	MT	50.00	0.000	1.56	499.72	779.56	0.00360568%
4.11	Dismantling GI/asbestos/translucent sheets, ridges, gutters etc. (taking all necessary safety precautions) in barricading,.....							
a	After fabrication, erection, NDT touchup painting, Testing	SQM	2950.00	0.000		139.57	-	0.00000000%
b	After pre-commissioning, commissioning	SQM	2950.00	0.000		16.42	-	0.00000000%
c	After punch point completion and handing over	SQM	2950.00	0.000		8.21	-	0.00000000%
4.12	Addition to, 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,.....							
4.12.1	In erected position							
a	After fabrication, erection, NDT touchup painting, Testing	MT	50.00	0.000		20,274.94	-	0.00000000%
b	After pre-commissioning, commissioning	MT	50.00	0.000		2,385.29	-	0.00000000%
c	After punch point completion and handing over	MT	50.00	0.000		1,192.64	-	0.00000000%
4.12.2	In fabrication yard							
a	After fabrication, erection, NDT touchup painting, Testing	MT	25.00	14.436	15.00	17,276.70	259,150.51	1.19864064%
b	After pre-commissioning, commissioning	MT	25.00	0.000	29.44	2,032.55	59,838.36	0.27676847%
c	After punch point completion and handing over	MT	25.00	0.000	29.44	1,016.28	29,919.18	0.13838424%
4.13	Supply, fabrication and fixing of GI pipe hand railing (1000 mm high) of 32 mm/40 mm dia (Medium Grade) including transportation,							
a	Supply ( Receipt at Site )	MT	50.00	18.777	12.00	78,303.47	939,641.62	4.34609462%
b	Fabrication & Erection	MT	50.00	8.469	22.31	32,626.45	1,355,008.89	6.26727971%
c	Touch up paint , Precommissioning & Commissioning	MT	50.00	0.000	30.78	13,050.58	652,528.90	3.01812127%
d	Punch Point Completion & Hand over	MT	50.00	0.000	30.78	6,525.29	326,264.45	1.50906063%
	<b>Total for section A-4</b>						<b>21,620,367.20</b>	<b>100.00000000%</b>
	<b>Section A-5: Extra Items</b>							

Item No.	Description of Item	Unit	Quantity in contract of original contractor	Quantity executed by original contractor	Quantity to be executed by bidder in the new Tender	Estimated Rate ( in Rs.) of new Tender	Estimated Amount(in Rs.) of the new tender	Weightage %
Extra Item-1	Extra over SOQRitem no. 4.3 for cutting of BHEL supplied plates (Cut to Sizes as per Engineering requirement/ Suit to Site) and welding (fillet size 8mm) of same, fitted cut to size plates for "Structural strengthening work" to fit on columns/ beam/ channels etc. as per BHEL site engineer instruction.							
a	85% after fabrication, erection, NDT touchup painting, Testing	MT	130.00	88.172	41.83	14,325.90	599,223.75	20.10586364%
b	10% after pre-commissioning, commissioning	MT	130.00	0.000	130.00	1,685.40	219,102.00	7.35156938%
c	5% after punch point completion and handing over	MT	130.00	0.000	130.00	842.70	109,551.00	3.67578469%
Extra Item-2	Providing and applying two component Acrylic- Polyurethane finish paint (40 micron at fiend) on one side of plate and providing and applying High Build Epoxy coating c....							
a	85% after fabrication, erection, NDT touchup painting, Testing	MT	130.00	0.000	130.00	1,115.85	145,061.09	4.86726105%
b	10% after pre-commissioning, commissioning	MT	130.00	0.000	130.00	131.28	17,066.01	0.57261895%
c	5% after punch point completion and handing over	MT	130.00	0.000	130.00	65.64	8,533.01	0.28630947%
Extra Item-3	Fabrication of pipe saddles, ( from free issue supply of raw materials by BHEL) the job includes development of drawing from line item no as per IOCL specification, approval from BHEL, TPI and delivery at site. (without blasting and painting)							
a	After fabrication, erection, NDT touchup painting, Testing	MT	30	0.000	30.00	28,804.80	864,144.00	28.99478128%
b	After pre-commissioning, commissioning	MT	30	0.000	30.00	3,388.80	101,664.00	3.41115074%
c	After punch point completion and handing over	MT	30	0.000	30.00	1,694.40	50,832.00	1.70557537%
Extra Item-4	Modification/Rectification of Shoe Pad on Parent Pipe ( IBR & Non-IBR) by cutting, Welding, etc. as per drawings and instruction of Engineer-in-charge : UOM: Length of welding converted into INCH DIA							
a	After fabrication, erection, NDT touchup painting, Testing	MT	1000	883.670	116.33	648.51	75,440.68	2.53127489%
b	After pre-commissioning, commissioning	MT	1000	0.000	1000.00	76.29	76,294.80	2.55993334%
c	After punch point completion and handing over	MT	1000	0.000	1000.00	38.15	38,147.40	1.27996667%
Extra Item-5	Removal of paints from flange raised serrated surface (size varying from 1 inch to 48 inch, in both IBR and Non-IBR category ) UOM: Unit rate per flange							
5.1	0 to less than or equal to 6 inch dia.							
a	After fabrication, erection, NDT touchup painting, Testing	Per Flange	132	109.000	23.00	510.00	11,730.00	0.39357883%
b	After pre-commissioning, commissioning	Per Flange	132	0.000	132.00	60.00	7,920.00	0.26574120%
c	After punch point completion and handing over	Per Flange	132	0.000	132.00	30.00	3,960.00	0.13287060%
5.2	More than 6 inch and less than or equal to 18 inch dia.							
a	After fabrication, erection, NDT touchup painting, Testing	Per Flange	25	25.000	0.00	1,530.00	-	0.00000000%
b	After pre-commissioning, commissioning	Per Flange	25	0.000	25.00	180.00	4,500.00	0.15098932%
c	After punch point completion and handing over	Per Flange	25	0.000	25.00	90.00	2,250.00	0.07549466%
5.3	More than 18 inch dia.							
a	After fabrication, erection, NDT touchup painting, Testing	Per Flange	25	54.000	0.00	2,550.00	0.00	0.00000000%
b	After pre-commissioning, commissioning	Per Flange	25	0.000	25.00	300.00	7,500.00	0.25164887%
c	After punch point completion and handing over	Per Flange	25	0.000	25.00	150.00	3,750.00	0.12582443%
Extra Item-6	Dismantling & removal of erected valves and re-erection , alignment and bolting with temporary gaskets before flusing (Steam, water, chemicals, etc. ) of pipes including supply of temporary gasket, scaffolding, supports & re-erecting, re-alignment and re-bolting with permanent gasketafter successful completion of flushing requirements using crane (if required) as per instruction of Engineer-in-charge.							0.00000000%
6.1	Size-2"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	1	0.000	1.00	1,016.69	1,016.69	0.03411330%



Item No.	Description of Item	Unit	Quantity in contract of original contractor	Quantity executed by original contractor	Quantity to be executed by bidder in the new Tender	Estimated Rate ( in Rs.) of new Tender	Estimated Amount(in Rs.) of the new tender	Weightage %
b	After pre-commissioning, commissioning	Nos	1	0.000	1.00	119.61	119.61	0.00401333%
c	After punch point completion and handing over	Nos	1	0.000	1.00	59.81	59.81	0.00200666%
6.2	Size-3"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	1	0.000	1.00	1,240.60	1,240.60	0.04162609%
b	After pre-commissioning, commissioning	Nos	1	0.000	1.00	145.95	145.95	0.00489719%
c	After punch point completion and handing over	Nos	1	0.000	1.00	72.98	72.98	0.00244859%
6.3	Size-4"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	1	0.000	1.00	1,467.11	1,467.11	0.04922616%
b	After pre-commissioning, commissioning	Nos	1	0.000	1.00	172.60	172.60	0.00579131%
c	After punch point completion and handing over	Nos	1	0.000	1.00	86.30	86.30	0.00289566%
6.4	Size-6"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	1	0.000	1.00	1,917.59	1,917.59	0.06434130%
b	After pre-commissioning, commissioning	Nos	1	0.000	1.00	225.60	225.60	0.00756956%
c	After punch point completion and handing over	Nos	1	0.000	1.00	112.80	112.80	0.00378478%
6.5	Size-8"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	1	0.000	1.00	3,031.63	3,031.63	0.10172073%
b	After pre-commissioning, commissioning	Nos	1	0.000	1.00	356.66	356.66	0.01196715%
c	After punch point completion and handing over	Nos	1	0.000	1.00	178.33	178.33	0.00598357%
6.6	Size-16"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	1	0.000	1.00	5,960.23	5,960.23	0.19998482%
b	After pre-commissioning, commissioning	Nos	1	0.000	1.00	701.20	701.20	0.02352763%
c	After punch point completion and handing over	Nos	1	0.000	1.00	350.60	350.60	0.01176381%
6.7	Size-20"							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	1	0.000	1.00	6,276.26	6,276.26	0.21058835%
b	After pre-commissioning, commissioning	Nos	1	0.000	1.00	738.38	738.38	0.02477510%
c	After punch point completion and handing over	Nos	1	0.000	1.00	369.19	369.19	0.01238755%
Extra Item-7	Incinerator chamber saddle base hole enlargement in set of one round hole and one slotted hole(One round hole & one slotted hole to be measured as one no. unit) from 62 mm to 66 mm							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	8	8.000	0.00	2,164.10	-	0.00000000%
b	After pre-commissioning, commissioning	Nos	8	0.000	8.00	113.90	911.20	0.03057366%
Extra Item-8	Sulphur Pit insert Plate welding ( 8 inch pipe) pipe supplied by BHEL, plate supplied by ETPL, which is claimed in A6_4.1							
a	After fabrication, erection, NDT touchup painting, Testing	Nos	75	72.000	3.00	3,796.60	11,389.80	0.38216394%
b	After pre-commissioning, commissioning	Nos	75	0.000	75.00	199.82	14,986.58	0.50284729%
Extra Item-9	Fabrication of pipe saddles,( from supply of raw materials by Contractor) the job includes development of drawing from line item no as per IOCL specification, approval from BHEL, TPI and delivery at site. (without blasting and painting)							
a	After fabrication, erection, NDT touchup painting, Testing	MT	7	1.747	5.25	83,887.35	440,660.25	14.78555375%
b	After pre-commissioning, commissioning	MT	7	0.000	7.00	9,869.10	69,083.70	2.31797799%
c	After punch point completion and handing over	MT	7	0.000	7.00	4,934.55	34,541.85	1.15898899%
Extra Item-10	Taking delivery of V-type SS Anchors from BHEL stores at site, doing surface preparation of inside converter surface of carbon steel, marking, positioning and doing fillet weld through "Shielded Metal Arc Welding (SMAW)" process, testing as per approved Welding..... as per approved drawing which will be issued by BHEL).							
a	After fabrication, erection, NDT touchup painting, Testing	LS	1	1.000	0.00	712,500.00	-	0.00000000%

Item No.	Description of Item	Unit	Quantity in contract of original contractor	Quantity executed by original contractor	Quantity to be executed by bidder in the new Tender	Estimated Rate ( in Rs.) of new Tender	Estimated Amount(in Rs.) of the new tender	Weightage %
b	After pre-commissioning, commissioning and handing over	LS	1	0.000	1.00	37,500.00	37,500.00	1.25824434%
	Total for extra items, A5						2,980,343.23	100.00000000%
	Total (Excluding GST)						₹ 123,782,865	

Section-2: Part-B:(Schedule of Quantities & Rates_Price Estimate):Erection, testing and commissioning of "Mechanical Equipment and Piping" etc Works: Insulation, and Painting Works									
Item No	Description	UOM	Quantity in contract of original contractor	Quantity executed by original contractor	Quantity to be executed by bidder in the new Tender	Rate (in Rs.)	Amount (in Rs.)	Weightage %	Remark
1	2	3	4	5	6	7	8	9	10
1	Installation, testing and commissioning of Insulation and dismantling of existing insulation, steam tracing pipelines.								
1.1	Installation of insulation (This is inclusive of the mineral wool, , insulation auxiliaries and consumables)	MT	108	0	127	₹ 16,287.40	₹ 2,068,499.80	69.1345790%	Payment Terms: Payment shall be made as per following methodology: 1. 85% after fabrication, erection, NDT 2. 10% After touch up painting, testing, pre-commissioning, commissioning 3. 5% after punch point completion and handing over.
1.2	Installation of Aluminium cladding including all hardware	MT	72	0	39	₹ 23,679.24	₹ 923,490.36	30.8654210%	
	Total (Excl taxes)						₹ 2,991,990	100.00%	
2	Supply of paint, preparation of surfaces, and application of paint (As per the painting specification/ scheme), identification (Line numbering), lettering, colourbands, colour coding etc. as specified including rubdown and touch up wherever required, providing scaffolding for all heights, labour, material, tools & tackles, consumables, supervision etc. to complete the work in all respects as per BHEL painting spec, drawings and direction of Engineer-in-Charge for all types of uninsulated piping and insulated piping as specified including all pipes, fittings, flanges, etc. The identification marks of the piping & joints shall be noted before final painting with Polyurethane paint (F2) or as per the instructions of Engineer-in-Charge.								
Item No	Description	UOM	Quantity in contract of original contractor	Quantity executed by original contractor	Balance Quantity to be executed by bidder in the new Tender	Rate (in Rs.)	Amount (in Rs.)	Weightage %	Remark
2.1	Painting of un-insulated CS & AS surfaces for Design Temperature Group: -14 TO 100 (DEG C).	SQM	943.94	0.00	943.94	₹ 675.81	₹ 637,920.65	22.89548%	Payment Terms: Payment shall be as per following methodology: 1. 50% after supply 2. 35 % after application 3. 10% After pre-commissioning, commissioning 4. 5% after punch point
2.2	Painting of un-insulated CS & AS surfaces for Design Temperature Group: 101 TO 400 (DEG C)	SQM	318.07	0.00	318.07	₹ 446.04	₹ 141,870.46	5.09184%	
2.3	Painting under insulated CS & AS surfaces for Design Temperature Group: - 45 TO 200 (DEG C)	SQM	2506.91	0.00	2506.91	₹ 681.57	₹ 1,708,637.17	61.32436%	

[illegible]