

"Un-price bid format" cum "Schedule of quantity and rates"     Volume-II of NIT						
Project Name: IOCL Paradip-Standby SRU (525TPD) Train project, Odisha						
Works & Services Name: “ Piping, Controtrace and Insulation  works"						
Tender Enquiry No.:						
Section No	Description	UOM	Qty	Amount in Rs.	Weightage %	Remarks
A 1	Piping Fabrication & Erection ( Above Gruond Piping)	Set	1	₹            44,092,193.08	98.8717416%	Refer Section-A1 for detailed BOQ
A 3	Contro Trace Works	Set	1	₹            118,269.10	0.26520504%	Refer Section-A 3 for detailed BOQ
A 4	Insulation Works	Set	1	₹            384,881.60	0.8630533%	Refer Section-A 4 for detailed BOQ
	Total (Excluding Taxes)	%		₹        44,595,343.78	100.00%	
Bidder to confirm having quoted their price in BHEL NIC portal https://eprocurebhel.co.in 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.4,45,95,343.78/- 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- A1,A3 & A4. 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 https://eprocurebhel.co.in)					
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.					

**Schedule of Quantities & Rates :: Section-A1**

**PIPING FABRICATION & ERECTION (ABOVE GROUND PIPING)**

SL NO	ITEM DESCRIPTION	UOM				
	PIPING FABRICATION & ERECTION (ABOVE GROUND PIPING)		Unti Rate(in Rs.)	QUANTITY	Amount (in Rs.)	Weightage %
<b>1</b>	<b>FABRICATION</b>					
<b>1.1</b>	<b>NIBR Piping</b>					
<b>1.1.1</b>	<b>CS Piping Fabrication (Butt Weld), Thickness &lt; 10MM,</b>					
i	Pipe size 2" upto 6"	Inch Dia	₹ 1,057.27	1,984.50	₹ 2,098,152.32	4.7585574%
ii	Pipe size 8" upto 14"	Inch Dia	₹ 1,057.27	1,624.00	₹ 1,717,006.48	3.8941281%
iii	Pipe size 16" upto 24"	Inch Dia	₹ 1,057.27	663.50	₹ 701,498.65	1.5909815%
<b>1.1.2</b>	<b>CS Piping Fabrication (Fillet Weld), Thickness &lt; 10MM,</b>					
i	Less than < 2"	Inch Dia	₹ 851.97	873.00	₹ 743,769.81	1.6868515%
ii	Slip-on / Socket Welded Flanges	Inch Dia	₹ 851.97	9.50	₹ 8,093.72	0.0183563%
<b>1.1.3</b>	<b>CS Piping Fabrication (Butt Weld), Thickness &gt; 10 mm &amp; &lt;= 20 mm</b>					
i	Pipe size 2" upto 6"	Inch Dia	₹ 1,253.07	200.50	₹ 251,240.54	0.5698073%
ii	Pipe size 8" upto 14"	Inch Dia	₹ 1,253.07	53.50	₹ 67,039.25	0.1520433%
iii	Pipe size 16" upto 24"	Inch Dia	₹ 1,253.07	318.50	₹ 399,102.80	0.9051552%
iv	Pipe size > 24"	Inch Dia	₹ 1,299.20	3,315.50	₹ 4,307,497.60	9.7692977%
<b>1.1.4</b>	<b>SS Piping Fabrication (Butt Weld), Thickness &lt; 10MM</b>	Inch Dia				0.0000000%
i	Pipe size 2" upto 6"	Inch Dia	₹ 2,530.68	4.50	₹ 11,388.06	0.0258278%
ii	Pipe size 8" upto 14"	Inch Dia	₹ 2,530.68	150.00	₹ 379,602.00	0.8609279%
<b>1.1.5</b>	<b>SS Piping Fabrication (Fillet Weld), Thickness &lt; 10MM</b>	Inch Dia				
i	Less than < 2"	Inch Dia	₹ 2,024.54	15.50	₹ 31,380.37	0.0711699%
ii	Slip-on / Socket Welded Flanges	Inch Dia	₹ 2,024.54	1.00	₹ 2,024.54	0.0045916%
<b>1.2</b>	<b>IBR Piping</b>					
<b>1.2.1</b>	<b>Alloy Steel Piping Fabrication (Butt Weld), Thickness &lt; 10MM,</b>					
i	Pipe size 2" upto 6"	Inch Dia	₹ 2,774.59	10.50	₹ 29,133.20	0.0660734%
<b>1.2.2</b>	<b>Alloy Steel Piping Fabrication (Fillet Weld), Thickness &lt; 10MM</b>					
i	Less than < 2"	Inch Dia	₹ 2,219.67	10.50	₹ 23,306.54	0.0528586%
ii	Slip-on / Socket Welded Flanges	Inch Dia	₹ 2,219.67	1.00	₹ 2,219.67	0.0050342%
<b>1.2.3</b>	<b>Alloy Steel Piping Fabrication (Butt Weld), Thickness &gt; 10 mm &amp; &lt;= 20 mm</b>					0.0000000%
i	Pipe size 8" upto 14"	Inch Dia	₹ 3,232.20	84.00	₹ 271,504.80	0.6157662%

**Schedule of Quantities & Rates :: Section-A1**

**PIPING FABRICATION & ERECTION (ABOVE GROUND PIPING)**

SL NO	ITEM DESCRIPTION					
<b>1.2.4</b>	<b>CS Piping Fabrication (Butt Weld), Thickness &lt; 10MM,</b>	Inch Dia				
i	Pipe size 2" upto 6"	Inch Dia	₹ 1,182.16	642.50	₹ <b>759,537.80</b>	1.7226129%
ii	Pipe size 8" upto 14"	Inch Dia	₹ 1,182.16	767.50	₹ <b>907,307.80</b>	2.0577516%
iii	Pipe size 16" upto 24"	Inch Dia	₹ 1,182.16	625.25	₹ <b>739,145.54</b>	1.6763637%
<b>1.2.5</b>	<b>CS Piping Fabrication (Fillet Weld), Thickness &lt; 10MM,</b>					
i	Less than < 2"	Inch Dia	₹ 945.73	315.50	₹ <b>298,377.82</b>	0.6767135%
ii	Slip-on / Socket Welded Flanges	Inch Dia	₹ 945.73	5.50	₹ <b>5,201.52</b>	0.0117969%
<b>1.2.6</b>	<b>CS Piping Fabrication (Butt Weld), Thickness &gt; 10 mm &amp; &lt; = 20 mm</b>					
i	Pipe size 2" upto 6"	Inch Dia	₹ 1,509.76	621.00	₹ <b>937,560.96</b>	2.1263650%
ii	Pipe size 8" upto 14"	Inch Dia	₹ 1,509.76	561.00	₹ <b>846,975.36</b>	1.9209191%
iii	Pipe size 16" upto 24"	Inch Dia	₹ 1,509.76	379.00	₹ <b>572,199.04</b>	1.2977332%
	<b>ERECTION</b>	<b>Inch Meter</b>				
<b>1.3</b>	<b>Erection of Pipes for various types of material and thickness</b>					
i	Less than < 2"	Inch Meter	₹ 385.85	4,697.00	₹ <b>1,812,337.45</b>	4.1103364%
ii	2" upto 6"	Inch Meter	₹ 385.85	12,347.00	₹ <b>4,764,089.95</b>	10.8048378%
iii	8" upto 14"	Inch Meter	₹ 377.63	11,473.50	₹ <b>4,332,737.81</b>	9.8265418%
iv	16" upto 24"	Inch Meter	₹ 377.63	10,102.50	₹ <b>3,815,007.08</b>	8.6523414%

**Schedule of Quantities & Rates :: Section-A1**

**PIPING FABRICATION & ERECTION (ABOVE GROUND PIPING)**

SL NO	ITEM DESCRIPTION					
v	More than > 24"	Inch Meter	₹ 375.15	11,741.25	₹ 4,404,729.94	9.9898182%
2	<b>Valve Erection: all Types</b>					
2.1	Size- Less than 2"	Nos	₹ 857.92	1,118.50	₹ 959,583.52	2.1763116%
2.2	Size-2"	Nos	₹ 1,335.68	253.00	₹ 337,927.04	0.7664101%
2.3	Size-3"	Nos	₹ 1,629.84	151.00	₹ 246,105.84	0.5581619%
2.4	Size-4"	Nos	₹ 1,927.42	98.00	₹ 188,887.16	0.4283914%
2.5	Size-6"	Nos	₹ 2,519.24	83.00	₹ 209,096.92	0.4742266%
2.6	Size-8"	Nos	₹ 3,982.80	24.00	₹ 95,587.20	0.2167894%
2.7	Size-10"	Nos	₹ 4,828.26	29.00	₹ 140,019.54	0.3175608%
2.8	Size-12"	Nos	₹ 5,470.74	4.00	₹ 21,882.96	0.0496300%
2.9	Size-14"	Nos	₹ 7,415.08	0.50	₹ 3,707.54	0.0084086%
2.10	Size-16"	Nos	₹ 7,830.26	6.50	₹ 50,896.69	0.1154324%
2.11	Size-18"	Nos	₹ 7,830.26	2.00	₹ 15,660.52	0.0355177%
2.12	Size-20"	Nos	₹ 8,245.44	4.00	₹ 32,981.76	0.0748018%
2.13	Size-24"	Nos	₹ 8,619.11	2.00	₹ 17,238.22	0.0390959%
2.14	Size-28"	Nos	₹ 15,152.84	0.50	₹ 7,576.42	0.0171831%
2.15	Size-30"	Nos	₹ 15,442.27	1.00	₹ 15,442.27	0.0350227%
2.16	Size-36"	Nos	₹ 15,939.61	4.00	₹ 63,758.44	0.1446026%
1.7	Size-44"	Nos	₹ 20,937.64	0.50	₹ 10,468.82	0.0237430%
2.18	Size-48"	Nos	₹ 16,486.69	4.00	₹ 65,946.76	0.1495656%

**Schedule of Quantities & Rates :: Section-A1**

**PIPING FABRICATION & ERECTION (ABOVE GROUND PIPING)**

SL NO	ITEM DESCRIPTION					
3	<b>NDT Works</b>					
3.1	Radiography for pipe joints as per specification of various sizes and material	Inch Dia	₹ 293.25	1,784.10	₹ 523,187.33	1.1865759%
3.2	Stress Relieving (PWHT) for pipe joints as per specification	Inch Dia	₹ 334.23	11,666.00	₹ 3,899,127.18	8.8431237%
3.3	Ultrasonic Textstig/ MP for pipe joints as per specification	Inch Dia	₹ 309.17	50.00	₹ 15,458.50	0.0350595%
4	Erection/ Installation of Hangers and supports etc. Note: material supplied by BHEL	MT	₹ 24,628.34	60.00	₹ 1,477,700.40	3.3513878%
5	Erection/ Installation of Temporary Piping for chemical cleaning including supply of materials	MT	₹ 22,437.60	10.00	₹ 224,376.00	0.5088792%
6	Erection/ Installation of Temporary Piping for steam blowing including supply of materials	MT	₹ 23,040.77	10.00	₹ 230,407.70	0.5225589%
	<b>Total (Excl. Taxes)</b>				₹ 44,092,193.08	100.00%

Schedule of Quantities & Rates -Section A3 Contro Trace Works						
SI No	Description	UOM	Qty	Unit Rate(in Rs.)	Total Amount(in Rs.)	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 contro trace material supplier	Inch Meter	1500	78.8460655	118269.1	100%

Schedule of Quantities & Rates -Section A4 Insulation Works						
Sl No	Description	UOM	Qty	Unit Rate(in Rs.)	Total Amount(in Rs.)	Weightage %
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	12	₹ 16,287.24	₹ 195,446.88	50.7810350%
1.2	Installation of Aluminium cladding including all hardware	MT	8	₹ 23,679.34	₹ 189,434.72	49.2189650%
	Total (Excl taxes)				₹ 384,881.60	100.00%