

#### Ref: 2040/HPSL/U2/CPP/2023-24/2040

Dated: 11.05.2023

To, The Scientist, Ministry of Environment, Forest & Climate Change, Integrated Regional Office, Aranya Bhawan, North Block, Sector-19, Naya Raipur, **ATAL NAGAR, RAIPUR (C.G.)-492002** 

# Sub: Submission of Half Yearly Environment Clearance Compliance Report of the conditions stipulated in Environmental clearance for the period of <u>October,2022 to March,2023</u>

Ref: Environmental Clearance F. No. J-11011/836/2008/IA.II(I) Dated 11.02.2009

Respected Sir,

With reference to the above subject, we are enclosing herewith Half Yearly Environment Clearance Compliance Report of the conditions stipulated in Environmental Clearance accorded by MOEF vide F.No.J-11011/836/2008/IA.II(I) Dated 11.02.2009 for the period of October,2022 to March,2023 in respect of HIRA POWER AND STEELS LTD. Unit-II (Ferro Division), Urla Industrial Complex, RAIPUR (C.G.).

We hope you will find the above Half Yearly Environment Clearance Compliance Report up to your satisfaction. Your valuable guidance further in this regard will be highly appreciated.

Kindly acknowledge the receipt of the same.

Thanking you,

Yours faithfully, For, **HIRA POWER AND STEELS LIMITED, UNIT- II** 

Aviral Timo

#### AUTHORIZED SIGNATORY

Encl: As Above Copy to:

- 1. The Director, Zonal Office, Central Pollution Control Board, 4th Floor, Sahkar Bhawan, North TT Nagar, Bhopal-462003.
- 2. The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhawan, North Block, Sector-19, Atal Nagar, Raipur (CG) 492 002.
- 3. The Regional Officer, Regional Office, Chhattisgarh Environment Conservation Board Commercial Complex Chhattisgarh Housing Board Colony, Kabir Nagar, Raipur (CG)–492 001.

Hira Power & Steels Limited An ISO 9001:2015 certified company CIN : U24117CT1984PLC002512

Registered Office & Works : Khasra No. 511/1, 512/2, Urla Industrial Complex, Raipur - 492003, Chhattisgarh, India P : +91 771 4082500, 4082600, F : +91 771 4082501, E : admin@hpslindia.com

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# HALF YEARLY COMPLIANCE REPORT OF THE CONDITIONS STIPULATED IN

# ENVIRONMENTAL CLEARANCE

# FOR

# THE PERIOD OF

# OCTOBER 2022 - MARCH 2023

# HIRA POWER & STEELS LTD. UNIT-II (FERRO DIVISION) Urla Industrial Complex, Raipur (C.G.) 492003





Project

Hira Power and Steels Limited Urla Industrial Complex, Raipur, Chhattisgarh-492 003

Compliance report of the conditions stipulated in Environmental Clearance Half Yearly Compliance report for the period of October 2022 – March 2023

## Environmental Clearance

Compliance status report of the conditions stipulated in Environmental Clearance accorded by MoEF vide letter F.No. J-11011/836/2008-IA II (I) Dated: 11<sup>th</sup> February 2019 for expansion of Ferro alloys plant [Unit- II, Si-Mn (9,000 TPA)/Fe-Mn (9,000 TPA)] total manufacturing capacity 18,000 MTPA at Khasra No. 513/1, 513/2, 513/3, 513/4, Urla Industrial Complex, Raipur, Chhattisgarh.

Sr. No.	A. Specific Conditions	Compliance Status				
		been installed to MVA submerged 6.0 MVA subm	ission monitoring facility have the common stack of 3.0 & 3.6 d arc furnaces, stack attached to lerged arc furnace and to the of 12MT/Heat CLU converter &			
i.	Continuous monitoring for all the stacks and sufficient air pollution control equipments viz. fume extraction system with bag filters, ID fan and stack of adequate height to submerged arc furnace and electrostatic precipitator to captive power plant shall be provided to control emissions below 50	Particulars	<ul> <li>3.0 MVA submerged arc furnaces,</li> <li>3.6 MVA submerged arc furnaces,</li> <li>6.0 MVA submerged arc furnace,</li> <li>12MT/Heat CLU converter,</li> <li>600 MTPA Thermic Plant</li> </ul>			
	mg/NM <sup>3</sup> as proposed.	Pollution control Equipments	Offline pulse jet bag filter			
		achieve the gives stacks is well	trol equipments are designed to ven norms. Emission from all within prescribed limit. Monthly t is being submitted regularly to			
ii.	In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fume and dust extraction system with bag filters shall be provided at the material transfer and discharge points to control fugitive emissions. Further, specific measures like water sprinkling around the coal stockpiles and asphalting or concreting of the roads shall be done to control to reduce the dust generation and fugitive emissions during handling.	to reduce fugit	ntrol measures have been taken ive emission. Please refer to Photographs and <b>Annexure-2</b> ssion Report.			





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			FUGITIVE	EEMIS	SION REPOR	т	
		Sr. No.	Area	Unit	Parameter	Limit (MoEF & CC Notifica tion)	
		1	A&B Furnace	µg/ m³	1470	2000	
		2	C&D Furnace	µg/ m³	1380	2000	
		3	CLU Converter	µg/ m³	1448	2000	
		4	Raw Material Yard	µg/ m³	1348	2000	
		5	CHP Area	µg/ m³	1428	2000	
iii.	Secondary fugitive emission from all the sources shall be controlled within the latest permissible limits issued by the Ministry and Regularly monitored Guidelines/code of practice issued by the CPCB shall be followed.	Is being complied with.					
iv.	Total requirement of the water from Chhattisgarh Ispat Bhumi Ltd. shall not exceed 30m <sup>3</sup> /day. All the cooling tower blow down and treated effluent shall be recycled/reused in the process, dust suppression and green belt development. Domestic waste water shall be treated in septic tank followed by soak pit and used in green belt development. No waste water shall be discharged outside the factor premises and zero discharge shall be adopted.	Agreed / is being complied with. "Zero" discharge has been adopted. No waste water is being discharged outside the factory premises.					
V.	Prior permission for the drawl of 30m <sup>3</sup> /day water from Chhattisgarh Ispat Bhumi Ltd. shall be obtained from the concerned department.	100 ł (CGV 500 Indus	KL/Day from VA) which is KL/Day wat	Central Attack er from pment	permission fo Groundwater ned as <b>Anne</b> m Chhattisga Corporation	Authority xure-3 & arh State	



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Compliance report of the conditions stipulated in Environmental Clearance

Is being complied with.

TCLP test report of all the slags is Attached as Annexure 5.

TCLP test shown that generated slag is non-hazardous in nature.

- Fe-Mn slag is used as raw material for Si-Mn production or sold to SiMn manufacturers.
- Si-Mn slag is used as aggregate for civil work & land filling.
- Used/spent oil is being used in manufacturing of copper pad, heating ladle & machinery lubrication.
- In case of excess quantity used oil will be sold to CECB/CPCB authorized recyclers only.

All the Ferro Alloys slag shall be used for land filling inside the plant or used as building material only after passing through Toxic Chemical Leachability Potential (TCLP) test. Otherwise, hazardous substance shall be recovered from the slag and the output waste and the disposed in secured landfill as per CPCB guidelines. All the granulated slag shall be provided to cement / brick manufacturers for bricks. No granulated slag shall be used for road construction and filling low lying areas. ETP sludge after drying shall be used as fertilizer for green belt development. Used oil shall be sold to recyclers / re-processors.

	TCLP REPO		
Sample.	Parameter	Limit	Result
	Iron as Fe	-	71.0
	Manganese as Mn	10.0	5.4
	Zinc as Zn	250	50.6
	Lead as Pb	5.0	1.1
Fe-Mn	Cadmium as Cd	1.0	N.D.
Slag	Chromium as Cr	5.0	N.D.
	Arsenic as AS	5.0	N.D.
	Mercury as Hg	0.2	N.D.
Sample.	Parameter	Limit	Result
	Iron as Fe	-	77.7
	Manganese as Mn	10.0	6.0
The sum it s	Zinc as Zn	250	30.1
Thermite	Lead as Pb	5.0	1.0
Slag	Cadmium as Cd	1.0	N.D.
	Chromium as Cr	5.0	N.D.
	Arsenic as	5.0	N.D.



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	AS	ance	
	Mercury as Hg	0.2	N.D.
Sample.	Parameter	Limit	Result
	Iron as Fe	-	70.2
	Manganese as Mn	10.0	6.8
	Zinc as Zn	250	77.8
MOx	Lead as Pb	5.0	2.4
Dust	Cadmium as Cd	1.0	N.D.
	Chromium as Cr	5.0	N.D.
	Arsenic as AS	5.0	N.D.
	Mercury as Hg	0.2	N.D.
Sample.	Parameter	Limit	Result
	Iron as Fe	-	36.9
	Manganese as Mn	10.0	7.2
	Zinc as Zn	250	58.1
Bag	Lead as Pb	5.0	2.6
Filter	Cadmium as Cd	1.0	N.D.
Dust			N.D.
Dust	Chromium as Cr	5.0	N.D.
Dust	as Cr Arsenic as AS	5.0 5.0	N.D.
	as Cr Arsenic as AS Mercury as Hg	5.0 0.2	N.D. N.D.
Dust Sample.	as Cr Arsenic as AS Mercury as	5.0	N.D.
Sample.	as Cr Arsenic as AS Mercury as Hg Parameter Iron as Fe	5.0 0.2	N.D. N.D.
Sample.	as Cr Arsenic as AS Mercury as Hg Parameter	5.0 0.2 Limit	N.D. N.D. Result





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				1			
				Lead as Pb	5.0	3.2	
				Cadmium as Cd	1.0	N.D.	
				Chromium as Cr	5.0	N.D.	
				Arsenic as AS	5.0	N.D	
				Mercury as Hg	0.2	N.D.	
			Sample.	Parameter	Limit	Result	
				Iron as Fe	-	51.2	
		Fly Ash	Manganese as Mn	10.0	4.1		
			Zinc as Zn	250	78.0		
				Lead as Pb	5.0	3.7	
			Fly Ash	Cadmium as Cd	1.0	N.D.	
				Chromium as Cr	5.0	N.D.	
				Arsenic as AS	5.0	N.D.	
				Mercury as Hg	0.2	N.D.	
vii.	Slag produced in Ferro Manganese (Fe-Mn) production shall be used in manufacture Silico Manganese (Si-Mn)	ls	being compl	ied with.			
viii.	Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste should be submitted to the Ministry's Regional Office at Bhopal, CECB and CPCB.	Solid waste utilization report is being submitter to the Ministry's Regional Office at Nagpur CECB and CPCB and it is attached a					
ix.	As proposed Green belt shall be developed in at least 34% within and around the plant premises as per the CPCB guidelines in consultation with DFO.	33.28 % has been developed inside factory premises and Total of more than 40% of plantation is being developed including the outside plantation. Certified survey report by third party for Green Belt is Attached as Annexure-7.					
<b>X</b> .	All the recommendations made in the charter on Corporate Responsibility for Environment	Сс	omplied.				



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	Protection (CREP) for the Ferro Alloys units shall be strictly implemented.	
xi.	The company shall provide housing for construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the projects.	Complied.
Sr. No.	A. General Conditions	Compliance Status
i.	The project authorities must strictly adhere to the stipulations made by the Chhattisgarh Environment Conservation Board (CECB) and the State Government.	Agreed & noted for compliance.
ii.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	Agreed & noted for compliance.
III.	The gaseous emission from the various process units shall conform to the load/mass based standards notified by the Ministry on 19 <sup>th</sup> May, 1993 and standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission level shall go beyond the prescribed standards; interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limits.	Complied.
iv.	Continuous stack monitoring facilities for all the major stacks and adequate air pollution control system shall be provided to keep emission levels below within permissible limits and reports submitted to the Ministry's Regional Office at Bhopal and CECB/CPCB once in a six month.	Continuous emission monitoring facility have been installed to the common stack of 3.0 & 3.6 MVA submerged arc furnaces, common stack attached to 2 x 5.5 MVA submerged arc furnace, stack attached to 6.0 MVA submerged arc furnace and to the common stack of 12MT/Head CLU converter & Thermic plant. Adequate air pollution control system have been provided to keep the emission level well within permissible limits and monitoring report is being submitted regularly to the Regional Office & Head Office of the CECB, Raipur.



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Sr. No	Monitoring Stack	Stack Month			
1		Ocť22	34.6		
2	AB Furnace	Nov'22	35.9		
3	(3.0 & 3.6 MVA	Dec'22	33.6		
4	Submerged	Jan'23	34.2		
5	Arc Furnace)	Feb'23	36.6		
6	Fumace)	Mar'23	38.9		
Sr.			Measured		
No	Monitoring Stack	Month	Concentra		
		montai	tion		
•			(mg/Nm <sup>3</sup> )		
1		Ocť 22	37.8		
2	C Furnace	Nov'22	35.8		
3	(5.5 MVA	Dec'22	38.9		
4	Submerged Arc	Jan'23	39.4		
5	Furnace)	Feb'23	38.2		
6		Mar'23	36.4		
Sr.			Measured		
No	Monitoring	Month	Concentra		
	Stack		tion		
			(mg/Nm <sup>3</sup> )		
1	D Furnace	Oct'22	34.6		
2	(5.5 MVA	Nov'22	35.7		
3	Submerged	Dec'22	36.8		
4	Arc Furnace)	Jan'23	37.0		



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5		Feb'23	35.8
6		Mar'23	37.6
Sr. No	Monitoring	Month	Measured Concentra tion (mg/Nm <sup>3</sup> )
1		Oct'22	32.6
2	E Furnace	Nov'22	33.9
3	(6.0 MVA Submerged Arc	Dec'22	34.4
4		Jan'23	34.9
5	-	Feb'23	32.8
6		Mar'23	35.9
Sr. No	Monitoring Stack	Month	Measured Concentra tion (mg/Nm <sup>3</sup> )
1		Ocť22	26.8
2		Nov'22	27.2
3	CLU Converter	Dec'22	29.8
4		Jan'23	30.3
5	(12 MT/Heat)	Feb'23	31.7
6		Mar'23	37.8
Sr. No	Monitoring Stack	Month	Measured Concentra



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Hira Power and Steels Limited

Urla Industrial Complex, F		hhattisgarh-4	92 003	
Compliance report of the conditions	s stipulate	ed in Environ	mental Clearand	e
				tion
				(mg/Nm <sup>3</sup> )
	1		Oct'22	42.8
	2		Nov'22	Plant under shutdown
	3	Captive		Plant under shutdown
	4	Power Pla (20 MW)		Plant under shutdown
	5		Feb'23	Plant under shutdown
	6	X	Mar'23	Plant under shutdown
	Is bein	g complied	with.	
loost four orbient air quality manitaring stations	is bein Office refer to mentio	ng submitte of the Minis o the <b>Annex</b> aned above	ed regularly to stry and CECE stre-8 (Stack	stack emission o the Regional 3/CPCB. Please emission data) ure-9 (Ambient w:-
least four ambient air quality monitoring stations ould be established in the downward direction as	Sr.		Near Cl	HP Area
Il as where maximum ground level concentration	No	Month	PM <sub>10</sub> PM <sub>2.5</sub>	SO <sub>2</sub> NO <sub>X</sub>

At le shou well as where maximum ground level concentration of SPM, SO<sup>2</sup>, and  $\mbox{NO}_{X}$  are anticipated in consultation with CECB. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Bhopal and the CECB/CPCB once in six month.

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Sr.		Near CHP Area						
No	Month	PM <sub>10</sub> (μg/ m <sup>3</sup> )	PM <sub>2.5</sub> (µg/m ³)	SO₂ (µg/ m³)	NO <sub>x</sub> (µg/ m <sup>3</sup> )			
1	Oct'22	68.2	26.8	13.2	26.8			
2	Nov'22	67.1	28.2	8.4	24.2			
3	Dec'22	66.4	32.4	14.2	24.6			
4	Jan'23	66.8	33.0	15.0	25.2			
5	Feb'23	67.4	33.8	16.4	26.0			
6	Mar'23	67.8	32.7	16.6	26.4			
Sr.			Besid	e Silo				
No	Month	PM <sub>10</sub> (μg/ m <sup>3</sup> )	PM <sub>2.5</sub> (µg/m	SO₂ (µg/ m³)	NO <sub>x</sub> (µg/ m <sup>3</sup> )			
1	Ocť22	62.6	20.8	8.6	20.6			



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Hira Power and Steels Limited Urla Industrial Complex, Raipur, Chhattisgarh-492 003

	Compliance report of the conditions	1 1000					
		2	Nov'22	63.4	21.4	8.1	19.5
		3	Dec'22	60.2	31.6	29.2	30.3
		4	Jan'23	61.2	33.0	15.0	25.2
		5	Feb'23	62.6	31.9	13.1	24.4
		6	Mar'23	63.2	30.4	13.8	24.9
		Sr.	S-		Solar Pa	anel Are	ea
		No	Month	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NOx
			Month	(µg/ m³)	(µg/m ³)	(µg/ m³)	(µg/ m³)
		1	Oct'22	54.8	22.6	9.4	22.8
		2	Nov'22	56.8	23.8	9.8	21.9
		3	Dec'22	56.2	29.2	11.4	23.6
		4	Jan'23	57.4	29.9	12.0	24.2
		5	Feb'23	58.2	30.0	12.8	25.6
		6	Mar'23	58.6	29.7	12.9	25.8
		Sr. No					
				Manth	PM <sub>10</sub>	PM <sub>2.5</sub>	Gate SO <sub>2</sub>
		NO	Month	(µg/ m³)	(µg/m	(µg/ m <sup>3</sup> )	(µg/ m <sup>3</sup> )
		1	Ocť22	60.2	24.6	10.8	28.4
		2	Nov'22	61.3	23.7	11.2	22.4
		3	Dec'22	58.6	30.3	12.4	26.8
		4	Jan'23	58.6	31.2	13.4	27.3
		5	Feb'23	59.4	32.1	14.5	27.7
		6	Mar'23	60.4	32.6	14.7	28.0
vi.	Industrial waste water shall be properly collected treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 <sup>th</sup> May, 1993 and 31 <sup>st</sup> December 1993 or as amended from	Efflue Anne: tank Sprink Analys	ng complie nt Treatm xure-10. T is utilized kling & A sis Report Effluent A	hent So he treat for Di Ash Co is attact	ted water ust supp onditionin hed as <b>A</b>	from s pression g. Wa nnexur	ilteration , Water stewater e-11.
	time to time. The treated waste water shall be utilized for plantation purpose.	S · P o	arameter	Unit		Inlet Vater	Outlet Water



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#### Hira Power and Steels Limited Urla Industrial Complex, Raipur, Chhattisgarh-492 003

Compliance report of the conditions	stipt	liated in Envir	onmer	ital Cleara	ance		
				9.0			
	2	TSS	mg /L	100	60	22	
	3	COD	mg /L	250	52	20	
	4	BOD	mg /L	30	13.6	5.2	
	5	Oil & Grease	mg /L	10	0.8	N.D.	
	Effluent Analysis Report (November 202						
	S N o	Parameter	Unit	Limit	Inlet Water	Outlet Water	
	1	pН	-	5.5 to 9.0	7.34	7.42	
	2	TSS	mg /L	100	66	24	
	3	COD	mg /L	250	110	34	
	4	BOD	mg /L	30	29.2	6.2	
	5	Oil & Grease	mg /L	10	0.6	N.D.	
	E	ffluent Ana	lysis F	Report (D	Decembe	er 2022)	
	S . N 0	Parameter	Unit	Limit	Inlet Water	Outlet Water	
	1	рН	-	5.5 to 9.0	8.14	7.32	
	2	TSS	mg /L	100	64	26	
	3	COD	mg /L	250	58	24	
	4	BOD	mg /L	30	14.2	5.6	
	5	Oil & Grease	mg /L	10	0.9	N.D.	



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#### Hira Power and Steels Limited Urla Industrial Complex, Raipur, Chhattisgarh-492 003

	Effluent Analysis Report (January 2023				2023	
	S . N 0	Parameter	Unit	Limit	Inlet Water	Outle Wate
	1	pН	-	5.5 to 9.0	8.47	7.38
	2	TSS	mg /L	100	68	28
	3	COD	mg /L	250	62	26
4		BOD	mg /L	30	16.71	7.42
	5	Oil & Grease	mg /L	10	1.0	N.D.
	E	Effluent Ana	alysis	Report (	Februar	/ 2023)
S . N 0	N	Parameter	Unit	Limit	Inlet Water	Outlet Water
	1	pН	-	5.5 to 9.0	8.50	7.44
	2	TSS	mg /L	100	70.4	30.8
	3	COD	mg /L	250	64.6	28.2
	4	BOD	mg /L	30	18.8	8.24
	5	Oil & Grease	mg /L	10	1.1	N.D.
		Effluent Ar	nalysis	s Report	(March	2023)
	S N O	Parameter	Unit	Limit	Inlet Water	Outlet Water
H	-	pН		5.5 to	8.48	8.12



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	Compliance report of the conditions	Supu	ated in Enviro	minerita		arance		
		2	TSS	mg /L	100	8	.7	3.2
		3	COD	mg /L	250	44	4.0	8.0
		4	BOD	mg /L	30	18	3.8	3.1
		5	Oil & Grease	mg /L	10	Abs	sent	Absent
			eing complie ase refer An ort.		e-12 i	for No	ise Mo	onitoring
			Noise Mor	nitorin	g Rep	oort- C	Oct 20	22
		S.			Li	mit	Re	esult
		N O	Location	Un it	D A Y	NIG HT	DAY	NIG HT
		1	Near CHP Area	Db (A)			64.6	52.4
	The overall noise levels in and around the plant area shall be kept well within the standards	2	Beside Silo	Db (A)	75	70	60.2	50.8
ii.	(85dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient	3	Solar Panel Area	Db (A)			62.5	54.2
	noise levels shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA	4	Main Gate	Db (A)			56.8	48.6
	(day time) and 70 dBA (Night time).	No	oise Monitor	ing Re	eport	– Nov	embe	r 2022
		S.	s	S	Li	mit	Re	esult
		N o	Location	Un it	D A Y	NIG HT	DAY	NIG HT
		1	Near CHP Area	Db (A)	-		62.2	53.4
		2	Beside Silo	Db (A)	75	70	63.0	51.2
		3	Solar Panel Area	Db (A)			61.8	52.5



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			Db				
	4	Main Gate	(A)			62.9	50.4
-	No	oise Monitori	ing Re	eport	- Dec	ember	2022
			Un	Li	mit	Res	sult
		it	D A Y	NIG HT	DAY	NIG HT	
	1	Near CHP Area	Db (A)			65.2	53.7
	2	Beside Silo	Db (A)			61.5	51.3
	3	Solar Panel Area	Db (A)	75	70	63.8	55.2
	4	Main Gate	Db (A)			57.0	49.6
		aina Manita	nim m E	lanar	+ lor		000
	N	oise Monito	ring R	cepor	t - Jar	nuary 2	023
	S.	loise Monito			mit	_	sult
		Location	Un it			_	
-	S. N		Un	Li D A	mit NIG	Res	sult NIG
	S. N o	Location Near CHP Area Beside Silo	Un it Db (A) Db (A)	Li D A Y	mit NIG HT	Res	sult NIG HT
	S. N o	Location Near CHP Area Beside	Un it Db (A) Db	Li D A	mit NIG	<b>Res DAY</b> 66.4	NIG HT 54.1
	<b>S</b> . N 0 1	Location Near CHP Area Beside Silo Solar Panel	Un it Db (A) Db (A) Db	Li D A Y	mit NIG HT	Res DAY 66.4 62.7	sult NIG HT 54.1 51.9
	<b>S</b> . <b>N</b> <b>o</b> 1 2 3 4	Location Near CHP Area Beside Silo Solar Panel Area	Un it Db (A) Db (A) Db (A) Db (A)	Li D A Y 75	mit NIG HT 70	Res DAY 66.4 62.7 64.0 57.5	Sult NIG HT 54.1 51.9 55.7 50.2





Project

#### Hira Power and Steels Limited Urla Industrial Complex, Raipur, Chhattisgarh-492 003

		0			D A Y	NIG HT	DAY	NIG HT			
		1	Near CHP Area	Db (A)			66.7	54.8			
		2	Beside Silo	Db (A)						63.0	52.2
		3	Solar Panel Area	Db (A)	75	70	64.5	56.5			
		4	Main Gate	Db (A)			58.1	50.8			
		1	Noise Monito	oring l	Repo	rt – M	arch 20	)23			
		S. N Location o	S.	S.			Li	mit	Res	sult	
				Un it	D A Y	NIG HT	DAY	NIG HT			
		1	Near CHP Area	Db (A)			66.9	55.0			
		2	Beside Silo	Db (A)			63.4	52.8			
		3	Solar Panel Area	Db (A)	75	70	65.0	55.5			
		4	Main Gate	Db (A)			58.6	49.6			
		0					11				
viii.	Occupation health surveillance of the workers shall be done on a regular basis and records maintained as per the Factory Act.	mair emp	upation Healt ntained as pe loyees and ple reports ar	r the F work	actor ers	ry Act. have	A total been	of 556 tested			
ix.	The company shall develop surface water harvesting structure to harvest the rain water for utilization in the lean season besides reaching the ground water table.		plied.								



Project

Hira Power and Steels Limited Urla Industrial Complex, Raipur, Chhattisgarh-492 003

	Compliance report of the conditions	stipula	ted in Environmental C	Clearance
Χ.	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP reports. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	Com toilet		ted cremation center, tation have been done
	The project authorities shall provide Rs. 15.00	capita envir condi	al cost & recurring onmental pollution c itions stipulated by N orests as well as the	been allocated towards o cost per annum for ontrol measures as per Ministry of Environment e State Government. al Pollution Control
	Lakhs earmarked towards the capital cost and recurring cost per annum for environmental	Sr.	Me	easures
xi.	pollution control measure shall be judiciously used to implement the conditions stipulated by the Ministry of Environment & Forests as well as the	No	Facility	Capital Cost and Recurring Cost for the period of Oct`22 to March`23 (Lakhs)
	State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Ministry including its Regional Office at Bhopal. The fund so provided should not be diverted for any other purpose.	01.	3.0 MVA, 3.6 MVA & 6.0 MVA submerged arc furnace, 12MT/Heat CLU converter and 600 MTPA Thermic Plant	163.34
xii.	The Regional Office of the Ministry at Bhopal/CPCB/CECB will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.			
xiii.	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letters are available with CECB and may also be seen at website of Ministry of Environment & Forests at http:/envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region	Com	olied.	





Project : Hira Power and Steels Limited Urla Industrial Complex, Raipur, Chhattisgarh-492 003

	Compliance report of the conditiona	supulated in Environmental oleanance
	of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional Office.	
xiv.	Project authority shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Date of Financial Closure – November 2009. Date of Final Approval of the project by the concerned authorities - 24 September 2009. Date of Commencing the land development work- October 2009.



Annexure - I



Rain gun

Fogging system on transfer points



Fogging system on transfer points



Fogging system on conveyor belt



Fogging system on conveyor belt

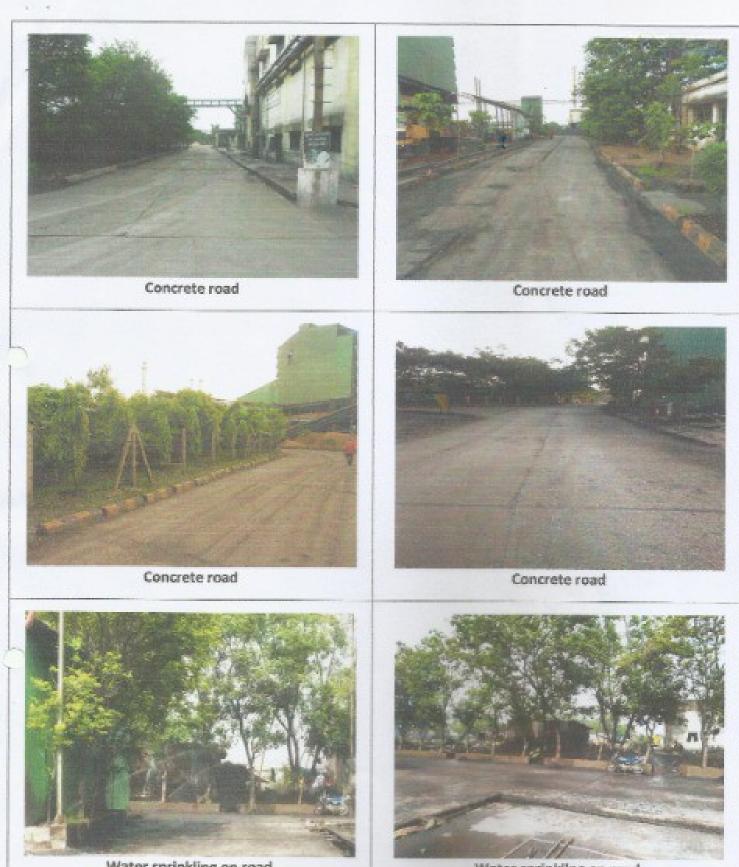


Covered shed for crusher



Covered vehicle transporting material





Water sprinkling on road

Water sprinkling on road



Water sprinkling using tanker



Mechanical sweeping of road



Mechanical sweeping of internal road



Format No. : UES/FORM/09



HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph : 0771 - 4027777 I Email : ultimatenviro@gmail.com

Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Name & Address Of The Customer		REPORT NO	UES/TR/22-23/0933	37		
То,	LAB REF NO	UES/22-23/FE/017912				
HIRA POWER AND STEE	DATE OF SAMPLING	10/03/2023 11/03/2023				
KHASRA NO.: 511/1, 512	DATE OF RECEIPT					
URLA INDUSTRIAL AREA		DATE OF REPORT	15/03/2023			
RAIPUR (C. G.) 492003		DATE OF ANALYSIS	Start:11/03/2023 End:15/03/2			
	SAMPI	E DETAILS				
MONITORING FOR	FUGITIVE EMISS	ON				
CUSTOMER REF. NO. &DATE	P.O. NO. 720000	4006/U102, DATED: 16/0	6/2022			
SAMPLING LOCATION	A & B FURNACE					
DURATION OF SAMPLING	8 HOURS					
SAMPLE COLLECTED BY	LABORATORY CH	IEMIST				
SAMPLING PROCEDURE	AS PER METHOD	REFERENCE				
SAMPLE QUANTITY/PACKING	GMF FILTER PAP	GMF FILTER PAPER (8 X 10 INCH): 1X1 NO.				

TEST REPORT						
SR.	BADANETER	INIT	RESULT	MOEF & CC	METHOD	
NO.	PARAMETER UNIT	A & B FURNACE	Notification	REFERENCE		
1	Total Suspended Particulate Matter (as SPM)	µg/m³	1470	2000	EPA Method IO-2.1	

Note: All results are on the basis of 8 hour sampling.

#### REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- Test sample will be retained for 15days after issue of test report unless otherwise agreed with customer.
- > This is for information as the party has asked for above test(s) only

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Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Name & Address Of The Customer		REPORT NO	UES/TR/22-23/0933	8		
То,	LAB REF NO	UES/22-23/FE/017913				
HIRA POWER AND STEEL	DATE OF SAMPLING	10/03/2023				
KHASRA NO. : 511/1, 512	DATE OF RECEIPT	11/03/2023				
URLA INDUSTRIAL AREA		DATE OF REPORT	15/03/2023			
RAIPUR (C. G.) 492003		DATE OF ANALYSIS	Start:11/03/2023	End:15/03/2023		
	SAMPI	LE DETAILS				
MONITORING FOR	FUGITIVE EMISS	ION				
CUSTOMER REF. NO. &DATE	P.O. NO. 720000	4006/U102, DATED: 16/0	6/2022			
SAMPLING LOCATION	C & D FURNACE					
DURATION OF SAMPLING	8 HOURS					
SAMPLE COLLECTED BY	LABORATORY CH	IEMIST				
SAMPLING PROCEDURE	AS PER METHOD	REFERENCE				
SAMPLE QUANTITY/PACKING	GMF FILTER PAP	GMF FILTER PAPER (8 X 10 INCH): 1X1 NO.				

	TEST REPORT						
SR.			RESULT	MOEF & CC	METHOD		
NO.	PARAMETER	UNIT	C & D FURNACE	Notification	REFERENCE		
1	Total Suspended Particulate Matter (as SPM)	µg/m³	1380	2000	EPA Method IO-2.1		

Note: All results are on the basis of 8 hour sampling.

#### REMARKS: RESULTS ARE AS ABOVE

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- > This is for information as the party has asked for above test(s) only

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Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Name & Address Of The Customer <b>To,</b>		REPORT NO	9	
		LAB REF NO	UES/22-23/FE/0179	UES/22-23/FE/017914
HIRA POWER AND STEEL	L LTD.	DATE OF SAMPLING	10/03/2023	
KHASRA NO.: 511/1, 512/2, URLA INDUSTRIAL AREA RAIPUR (C. G.) 492003		DATE OF RECEIPT	11/03/2023	
		DATE OF REPORT	15/03/2023	
		DATE OF ANALYSIS	Start:11/03/2023	End:15/03/2023
	SAMPL	E DETAILS		
MONITORING FOR	FUGITIVE EMISSI	ON		
CUSTOMER REF. NO. &DATE	P.O. NO. 7200004	4006/U102, DATED: 16/0	6/2022	
SAMPLING LOCATION	CONVERTOR CLU			
DURATION OF SAMPLING	8 HOURS			
SAMPLE COLLECTED BY	LABORATORY CH	EMIST		
SAMPLING PROCEDURE	AS PER METHOD	REFERENCE		
SAMPLE QUANTITY/PACKING	GMF FILTER PAPI	ER (8 X 10 INCH): 1X1 NO.	•	

	TEST REPORT							
SR.			RESULT	MOEF & CC	METHOD			
NO.	PARAMETER	UNIT	CONVERTOR CLU	Notification	REFERENCE			
1	Total Suspended Particulate Matter (as SPM)	µg/m³	1448	2000	EPA Method IO-2.1			

Note: All results are on the basis of 8 hour sampling.

#### REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

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- Test sample will be retained for 15days after issue of test report unless otherwise agreed with customer.
- > This is for information as the party has asked for above test(s) only

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Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Name & Address Of The Customer To, HIRA POWER AND STEEL LTD. KHASRA NO.: 511/1, 512/2, URLA INDUSTRIAL AREA RAIPUR (C. G.) 492003		REPORT NO	UES/TR/22-23/09340 UES/22-23/FE/017915		
		LAB REF NO			
		DATE OF SAMPLING	10/03/2023		
		DATE OF RECEIPT	11/03/2023		
		DATE OF REPORT	15/03/2023		
		DATE OF ANALYSIS	Start:11/03/2023	End:15/03/2023	
a a constant de la constant de la constant	SAMPI	LE DETAILS			
MONITORING FOR	FUGITIVE EMISS	ION			
CUSTOMER REF. NO. &DATE	P.O. NO. 720000	4006/U102, DATED: 16/0	6/2022		
SAMPLING LOCATION	RAW MATERIAL	YARD			
DURATION OF SAMPLING	8 HOURS				
SAMPLE COLLECTED BY	LABORATORY CI	HEMIST			
SAMPLING PROCEDURE	AS PER METHOD	REFERENCE			
SAMPLE QUANTITY/PACKING	GMF FILTER PAP	ER (8 X 10 INCH): 1X1 NO.			

		TEST	REPORT		
SR. NO.	PARAMETER	UNIT	RESULT RAW MATERIAL YARD	MOEF & CC Notification	METHOD REFERENCE
1	Total Suspended Particulate Matter (as SPM)	µg/m³	1384	2000	EPA Method IO-2.1

Note: All results are on the basis of 8 hour sampling.

#### REMARKS: RESULTS ARE AS ABOVE

**Terms & conditions** 

- > The report for publication, arbitration or as legal dispute is forbidden.
- Test sample will be retained for 15days after issue of test report unless otherwise agreed with customer.

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> This is for information as the party has asked for above test(s) only

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Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Name & Address Of The Customer	REPORT NO	UES/TR/22-23/09341 UES/22-23/FE/017916			
То,	LAB REF NO				
HIRA POWER AND STEE	DATE OF SAMPLING	10/03/2023			
KHASRA NO.: 511/1, 512	DATE OF RECEIPT	11/03/2023			
URLA INDUSTRIAL AREA RAIPUR (C. G.) 492003		DATE OF REPORT	15/03/2023		
		DATE OF ANALYSIS	Start:11/03/2023	End:15/03/2023	
	SAMPI	LE DETAILS			
MONITORING FOR	FUGITIVE EMISS	ION			
CUSTOMER REF. NO. &DATE	P.O. NO. 720000	4006/U102, DATED: 16/0	6/2022		
SAMPLING LOCATION	CHP AREA				
DURATION OF SAMPLING	8 HOURS				
SAMPLE COLLECTED BY	LABORATORY CH	HEMIST			
SAMPLING PROCEDURE	AS PER METHOD	AS PER METHOD REFERENCE			
SAMPLE QUANTITY/PACKING	GMF FILTER PAP	GMF FILTER PAPER (8 X 10 INCH): 1X1 NO.			

		TEST	REPORT		
SR.			RESULT	MOEF & CC	METHOD
NO.	PARAMETER	UNIT	CHP AREA	Notification	REFERENCE
1	Total Suspended Particulate Matter (as SPM)	µg/m³	1428	2000	EPA Method IO-2.1

Note: All results are on the basis of 8 hour sampling.

#### REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- Test sample will be retained for 15days after issue of test report unless otherwise agreed with customer.
- > This is for information as the party has asked for above test(s) only

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	End of the test repo	rt

ANNEXURE - 111



भारत सरकार जल शक्ति मंत्रालय जल संसाधन, नदी विकास और गंगा संरक्षण विभाग केन्द्रीय भूमि जल प्राधिकरण Government of India Ministry of Jal Shakti Department of Water Resources. River Development & Ganga Rejuvenation Central Ground Water Authority

## (भूजल निकासी हेतु अनापत्ति प्रमाण पत्र) NO OBJECTION CERTIFICATE (NOC) FOR GROUND WATER ABSTRACTION

Project Name:			M/s	Hira Po	ower	And Ste	els Limit	ed Uni	t li				
Project Address:			Urla	Indust	rial A	rea							
Town:			Birg	aon (m	)			Block	K: [	Dharsiwa			
District:			Rain	bur				State		Chhattisgar	b		
Pin Code:								olule		aniattisgai	n		
Communication Add	dress:		Hira Dha	Power rsiwa, F	And Raipu	Steels I r, Chha	.td. Unit I ttisgarh -	i, Urla 49200	Industr 3	ial Area, K	.h. No.	511/1, 5	512/2,
Address of CGWB I	Regiona	I Office	: Cen	tral Gro Logistic	und \	Nater B	oard Nor	th Cer	tral Chi	hattisgarh, nartarai, R	2nd Flo aipur, C	oor, Lk ( Chhattisg	Corporate Jarh -
1. NOC No.:	CG	WA/NO	C/IND/C	RIG/2	021/1	2176							
2. Application No.:			CT/IND/		02.171	2110	3.	Categ (GWF	gory: RE 2017	Cr	itical		
4. Project Status:	Exis	ting Pro	oject				5.	NOC		Ne	w		
6. Valid from:		6/2021					7.	Valid	up to:	09	/06/202	4	
8. Ground Water Ab	stractio	n Perm	itted:									505C)	
Fresh Water			Salin	e Wate	r		De	wateri	ng		13	Total	
concentration of the second	year 20.00	m	³/day	m	³/year	-	m³/day		m³/yea	r m	³/day		³/year
. Details of ground	2400346264255	bstracti	ion /Dev	vatering	a stru	ctures							
			ting No		Jourd	oraroo				Total Draw			
		DW	DCB	BW	TW	MP	MPu	DW		Total Prop BW	TW	MP	MPu
Abstraction Structu	ure*	0	0	4	0	0	0	0	0	2	0	0	0
DW- Dug Well; DCB-Dug-	um-Bore	Well; BV	V-Bore We	ell; TW-T	ube We	ell; MP-M	ine Pit;MPu	-Mine P		2	U.	U	U
0. Ground Water Ab	stractior	n/Resto	ration C	harges	paid	(Rs.):				3818	40.00		
<ol> <li>Number of Piezon constructed/ moni</li> </ol>	tored &	)bserva Monito	ation we ring me	lls) to b chanisn	e n.	No. of	Piezome	ters		Monitorin	ig Mech	nanism	
								N	/lanual	DWLR**	DWLF	R With T	elemetry
**DWLR - Digital Wate	r Level Re	ecorder					1		0	1		0	

This is an auto generated document & need not to be signed.

18/11, जामनगर हाउस, मानसिंह रोड, नई दिल्ली - 110011 / 18/11, Jamnagar House, Mansingh Road, New Delhi-110011 Phone: (011) 23383561 Fax: 23382051, 23386743 Website: cgwa-noc.gov.in

> पानी बचाये – जीवन वचाये SAVE WATER - SAVE LIFE

Validity of this NOC shall be subject to compliance of the following conditions:

Mandatory conditions:

1) Installation of tamper proof digital water flow meter with telemetry on all the abstraction structure(s) shall be mandatory for all users seeking No Objection Certificate and intimation regarding their installation shall be communicated to the CGWA within 30 days of grant of No Objection Certificate.

2) Proponents shall mandatorily get water flow meter calibrated from an authorized agency once in a year.

3) Construction of purpose-built observation wells (piezometers) for ground water level monitoring shall be mandatory as per Section 14 of Guidelines. Water level data shall be made available to CGWA through web portal. Detailed guidelines for construction of piezometers are given in Annexure-II of the guidelines.

4) Proponents shall monitor quality of ground water from the abstraction structure(s) once in a year. Water samples from bore wells/ tube wells / dug wells shall be collected during April/May every year and analysed in NABL accredited laboratories for basic parameters (cations and anions), heavy metals, pesticides/ organic compounds etc. Water quality data shall be made available to CGWA through the web portal.

5) In case of mining projects, additional key wells shall be established in consultation with the Regional Director, CGWB for ground water level monitoring four (4) times a year (January, May, August and November) in core as well as buffer zones of the mine.

6) In case of mining project the firm shall submit water quality report of mine discharge/ seepage from Govt. approved/ NABL accredited lab.

7) The firm shall report compliance of the NOC conditions online in the website (www.cgwa-noc.gov.in) within one year from the date of issue of this NOC.

8) Industries abstracting ground water in excess of 100 m 3 /d shall undertake annual water audit through certified auditors and submit audit reports within three months of completion of the same to CGWA. All such industries shall be required to reduce their ground water use by at least 20% over the next three years through appropriate means.

9) Application for renewal can be submitted online from 90 days before the expiry of NOC. Ground water withdrawal, if any, after expiry of NOC shall be illegal & liable for legal action as per provisions of Environment (Protection) Act. 1986.

10) This NOC is subject to prevailing Central/State Government rules/laws/norms or Court orders related to construction of tube well/ground water abstraction structure / recharge or conservation structure/discharge of efficients or any such matter as applicable.

General conditions:

11) No additional ground water abstraction and/or de-watering structures shall be constructed for this purpose without prior approval of the Central Ground Water Authority (CGWA).

12) The proponent shall seek prior permission from CGWA for any increase in quantum of groundwater abstraction (more than that permitted in NOC for specific pened).

13) Proponents shall install roof top rain water harvesting in the premise as per the existing building bye laws in the premise.

14). The project proponent shall take all necessary measures to prevent contamination of ground water in the premises failing which the firm shall be responsible for any consequences arising thereupon.

15) In case of industries that are likely to contaminate the ground water, no recharge measures shall be taken up by the firm inside the plant premises. The runoff generated from the rooftop shall be stored and put to beneficial use by the firm.

16) Wherever feasible, requirement of water for greenbelt (horticulture) shall be met from recycled / treated waste water;

17) Wherever the NOC is for abstraction of saline water and the existing wells (a) is /are yielding fresh water, the same shall be sealed and new tubewell(s) tapping saline water zone shall be constructed within 3 months of the issuance of NOC. The firm shall also ensure safe disposal of saline residue, if any.

18) Unexpected variations in inflow of ground water into the mine pit, if any, shall be reported to the concerned Regional Director, Central Ground Water Board.

19) In case of violation of any NOC conditions, the applicant shall be liable to pay the penalties as per Section 16 of Guidelines.

20) This NOC does not absolve the proponents of their obligation / requirement to obtain other statutory and administrative clearances from appropriate authorities.

21) The issue of this NOC does not imply that other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would consider the project on merits and take decisions independently of the NOC.

22) In case of change of ownership, new owner of the industry will have to apply for incorporation of necessary changes in the No Objection Certificate with documentary proof within 60 days of taking over possession of the premises.

23) This NOC is being issued without any prejudice to the directions of the Hon'ble NGT/court orders in cases related to ground water or any other related matters.

24) Proponents, who have installed/constructed artificial recharge structures in compliance of the NOC granted to them previously and have availed rebate of upto 50% (fifty percent) in the ground water abstraction charges/ground water restoration charges, shall continue to regularly maintain artificial recharge structures.

25) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, pharmaceutical, other hazardous units etc. (as per CPCE list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution as per Annexure III of the guidelines.

26) In case of new infrastructure projects having ground water abstraction of more than 20 m3/day, the firm/entity shall ensure implementation of dual water supply system in the projects.

27) In case of infrastructure projects, paved/parking area must be covered with interlocking/perforated tiles or other suitable measures to ensure groundwater infiltration/harvesting,

28) In case of coal and other base metal mining projects, the project proponent shall use the advance dewatering technology (by construction of series of dewatering abstraction structures) to avoid contamination of surface water.

The NOC issued is conditional subject to the conditions mentioned in the Public notice dated 27.01.2021 failing which penalty/EC/cancellation of NOC shall be imposed as the case may be.
 This NOC is issued subject to the dearance of Expert Appraisal Committee (EAC) (if applicable).

(Non-compliance of the conditions mentioned above is likely to result in the cancellation of NOC and legal action against the proponent.)



Chhattisgarh State Industrial Development Corporation Limited (A Government of Chhattisgarh Undertaking) (ISO 9001:2015 Certified) First Floor, Udyog Bhawan, Ring Road No.-1, Telibandha, Raipur-492006 (C.G.) CIN : U45203CT1981SG001853, PAN : AABCM6288N, GST Regn. No. : 22AABCM6288N5ZY Phone No. : 0771-6002071, 72, 73, Fax No. : 0771-2583794 Website: www.csidc.in, Email address: csidc\_raipur@yahoo.com, csidc.cg@nic.in

No./CSIDC/EE/DIV.-II/2020-21/

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WATER AVAILABILITY/ NON-AVAILABILITY CERTIFICATE FOR FRESH/TREATED WATER

#### TO WHOMSOEVER IT MAY CONCERN

This is to certificate that this office of Chhattisgarh State Industrial Development Corporation Ltd. is providing fresh water supply to the tune of 500 KLD to the firm M/s Hira Power & Steels, Located at Urla Industrial Complex, Block/Taluka Dharshiwa Distt. Raipur State Chhattisgarh

Raipur, Dated 0/01/2021

Executive Engineer EXECUTIVEOENGINEER CSIDC LIMITED, ~ RAIPUR

6 F: HRVermo Tech-02 Letter(2019-20) Letter (English) doc

Annexure-V

Format No. : UES/FORM/09



HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph : 0771 - 4027777 I Email : ultimatenviro@gmail.com

Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

CUSTOMER SAMPLE ID SAMPLE TYPE	JSTOMER SAMPLE ID AOD SLAG		ATE ECEIPT	VERBAL COMMUNICATION DATED: 10/03/2023 OK			
		DATE OF ANALYSIS	Start: 11/03/2	End: 15/03/2023			
RAIPUR – 492003, CHHATTISGARH, INDIA	DATE OF REPORT	15/03/2023					
TO, HIRA POWER & STEELS LIMITED PLOT NO. 557, 563 & 564, URLA INDUSTRIAL COMPLEX, URLA,		DATE OF RECEIPT	11/03/2023	10/03/2023 11/03/2023			
		DATE OF SAMPLING	10/03/2023				
		LAB REF NO.	UES/22-23/MI	SC/01790	)5		
Name & Address Of The Customer		REPORT NO.	UES/TR/22-23,	UES/TR/22-23/09329			

TEST REPORT								
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	LIMIT SCHEDULE II [See rule 3 (1) (17) (ii)]	RESULT			
1	Iron as Fe	mg/l	USEP <mark>A METHO</mark> D-1311	-	16.2			
2	Manganese as Mn	mg/l	USEPA METHOD-1311	10.0	8.6			
3	Zinc as Zn	mg/l	USEPA METHOD-1311	250	60.8			
4	Lead as Pb	mg/l	USEPA METHOD-1311	5.0	3.2			
5	Cadmium as Cd	mg/l	USEPA METHOD-1311	1.0	N.D.			
6	Chromium as Cr	mg/l	USEPA METHOD-1311	5.0	N.D.			
7	Arsenic as As	mg/l	USEPA METHOD-1311	5.0	N.D.			
8	Mercury as Hg	mg/l	USEPA METHOD-1311	0.2	N.D.			

#### REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

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> Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.



-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Name & Address Of The Customer TO, HIRA POWER & STEELS LIMITED PLOT NO. 557, 563 & 564, URLA INDUSTRIAL COMPLEX, URLA, RAIPUR – 492003, CHHATTISGARH, INDIA		REPORT NO.	UES/TR/22-23/09330			
		LAB REF NO.	UES/22-23/MI	JES/22-23/MISC/017906		
		DATE OF SAMPLING 10/03/2023				
		DATE OF RECEIPT	11/03/2023 15/03/2023			
		DATE OF REPORT				
		DATE OF ANALYSIS	Start: 11/03/20	023	End: 15/03/2023	
	SAM	PLE DETAILS				
CUSTOMER SAMPLE ID	Fe Mn SLAG	CUSTOMER REF. NO. & DA	ATE .	1	COMMUNICATION	
SAMPLE TYPE SLAG		SAMPLE CONDITION AT R	ECEIPT	ОК		
SAMPLE COLLECTED BY	CUSTOMER	QUANTITY RECEIVED		1 KG.		

TEST REPORT						
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	LIMIT SCHEDULE II [See rule 3 (1) (17) (ii)]	RESULT	
1	Iron as Fe	mg/l	USEPA METHOD-1311	-	71.0	
2	Manganese as Mn	mg/l	USEPA METHOD-1311	10.0	5.4	
3	Zinc as Zn	mg/l	USEPA METHOD-1311	250	50.6	
4	Lead as Pb	mg/l	USEPA METHOD-1311	5.0	1.1	
5	Cadmium as Cd	mg/l	USEPA METHOD-1311	1.0	N.D.	
6	Chromium as Cr	mg/l	USEPA METHOD-1311	5.0	N.D.	
7	Arsenic as As	mg/l	USEPA METHOD-1311	5.0	N.D.	
8	Mercury as Hg	mg/l	USEPA METHOD-1311	0.2	N.D.	

### REMARKS: RESULTS ARE AS ABOVE

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	Kabir Nagar B. O	For ULTIMATE ENVIROLYTICAL SOLUTIONS
15/03/2023		Rech
<b>REVIEWED BY</b>	2 CHH # 1000 65	15/03/23
NEVIEWED DI		AUTHORIZED SIGNATORY

-----End of the test report-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

URLA INDUSTRIAL COMPLEX, URLA, RAIPUR – 492003, CHHATTISGARH, INDIA SAM		DATE OF REPORT			End: 15/03/2023
	SAMI	PLE DETAILS	3tart: 11/03/20	123	End. 15/03/2023
CUSTOMER SAMPLE ID	SAME Fly Ash SLAG		ATE	VERBAL	LINU. 13/03/2023 L COMMUNICATION : 10/03/2023

TEST REPORT					
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	LIMIT SCHEDULE II [See rule 3 (1) (17) (ii)]	RESULT
1	Iron as Fe	mg/l	USEPA METHOD-1311	-	51.2
2	Manganese as Mn	mg/l	USEPA METHOD-1311	10.0	4.1
3	Zinc as Zn	mg/l	USEPA METHOD-1311	250	78.0
4	Lead as Pb	mg/l	USEPA METHOD-1311	5.0	3.7
5	Cadmium as Cd	mg/l	USEPA METHOD-1311	1.0	N.D.
6	Chromium as Cr	mg/l	USEPA METHOD-1311	5.0	N.D.
7	Arsenic as As	mg/l	USEPA METHOD-1311	5.0	N.D.
8	Mercury as Hg	mg/l	USEPA METHOD-1311	0.2	N.D.

Note N.D. Not Detetted

#### REMARKS: RESULTS ARE AS ABOVE

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-----End of the test report-----



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Name & Address Of The Customer TO, HIRA POWER & STEELS LIMITED PLOT NO. 557, 563 & 564, URLA INDUSTRIAL COMPLEX, URLA, RAIPUR – 492003, CHHATTISGARH, INDIA		REPORT NO. LAB REF NO. DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS	LAB REF NO.UES/22-23/MISC/017908DATE OF SAMPLING10/03/2023DATE OF RECEIPT11/03/2023DATE OF REPORT15/03/2023		
	SAMI	PLE DETAILS			
CUSTOMER SAMPLE ID MOx DUST SAMPLE TYPE SLAG		CUSTOMER REF. NO. & D	ATE	VERBAL COMMUNICATION DATED: 10/03/2023	
		SAMPLE CONDITION AT RECEIPT		ОК	
SAMPLE COLLECTED BY	CUSTOMER	QUANTITY RECEIVED		1 KG.	

TEST REPORT					
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	LIMIT SCHEDULE II [See rule 3 (1) (17) (ii)]	RESULT
1	Iron as Fe	mg/l	USEPA METHOD-1311	-	70.2
2	Manganese as Mn	mg/l	USEPA METHOD-1311	10.0	6.8
3	Zinc as Zn	mg/l	USEPA METHOD-1311	250	77.8
4	Lead as Pb	mg/l	USEPA METHOD-1311	5.0	2.4
5	Cadmium as Cd	mg/l	USEPA METHOD-1311	1.0	N.D.
6	Chromium as Cr	mg/l	USEPA METHOD-1311	5.0	N.D.
7	Arsenic as As	mg/l	USEPA METHOD-1311	5.0	N.D.
8	Mercury as Hg	mg/l	USEPA METHOD-1311	0.2	N.D.

#### REMARKS: RESULTS ARE AS ABOVE

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	EL CONTRACTOR	15/03/23
REVIEWED BY	* *	AUTHORIZED SIGNATORY

-----End of the test report-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Name & Address Of The Customer TO, HIRA POWER & STEELS LIMITED PLOT NO. 557, 563 & 564, URLA INDUSTRIAL COMPLEX, URLA, RAIPUR – 492003, CHHATTISGARH, INDIA		REPORT NO. LAB REF NO. DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS	LAB REF NO.         UES/22-23/MISC/017909           DATE OF SAMPLING         10/03/2023           DATE OF RECEIPT         11/03/2023           DATE OF REPORT         15/03/2023		
	SAMI	PLE DETAILS			
CUSTOMER SAMPLE ID     POLLUTION DUST       SAMPLE TYPE     SLAG		CUSTOMER REF. NO. & D/	ATE	VERBAL COMMUNICATION DATED: 10/03/2023	
		SAMPLE CONDITION AT R	ECEIPT	ОК	
SAMPLE COLLECTED BY	CUSTOMER	QUANTITY RECEIVED		1 KG.	

TEST REPORT					
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	LIMIT SCHEDULE II [See rule 3 (1) (17) (ii)]	RESULT
1	Iron as Fe	mg/l	USEPA METHOD-1311	-	36.9
2	Manganese as Mn	mg/l	USEPA METHOD-1311	10.0	7.2
3	Zinc as Zn	mg/l	USEPA METHOD-1311	250	58.1
4	Lead as Pb	mg/l	USEPA METHOD-1311	5.0	2.6
5	Cadmium as Cd	mg/l	USEPA METHOD-1311	1.0	N.D.
6	Chromium as Cr	mg/l	USEPA METHOD-1311	5.0	N.D.
7	Arsenic as As	mg/l	USEPA METHOD-1311	5.0	N.D.
8	Mercury as Hg	mg/l	USEPA METHOD-1311	0.2	N.D.

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-----End of the test report-----



HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph : 0771 - 4027777 I Email : ultimatenviro@gmail.com

Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Name & Address Of The Custon TO.	1er	REPORT NO.	UES/TR/22-23/0	9334	
HIRA POWER & STI		LAB REF NO.	UES/22-23/MISC	UES/22-23/MISC/017910	
PLOT NO. 557, 563 & 564,		DATE OF SAMPLING	10/03/2023	)/03/2023	
URLA INDUSTRIAL		DATE OF RECEIPT	11/03/2023		
RAIPUR – 492003, CHHATTISGARH, INDIA		DATE OF REPORT	15/03/2023		
,		DATE OF ANALYSIS	Start: 11/03/202	23 End: 15/03/2023	
	SAMI	PLE DETAILS			
CUSTOMER SAMPLE ID	THERMITE SLAG	CUSTOMER REF. NO. & DATE		VERBAL COMMUNICATION DATED: 10/03/2023	
SAMPLE TYPE	SLAG	SAMPLE CONDITION AT R	ECEIPT	OK	
SAMPLE COLLECTED BY	CUSTOMER	QUANTITY RECEIVED		1 KG.	

TEST REPORT						
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	LIMIT SCHEDULE II [See rule 3 (1) (17) (ii)]	RESULT	
1	Iron as Fe	mg/l	USEPA METHOD-1311	_	77.7	
2	Manganese as Mn	mg/l	USEPA METHOD-1311	10.0	6.0	
3	Zinc as Zn	mg/l	USEPA METHOD-1311	250	30.1	
4	Lead as Pb	mg/l	USEPA METHOD-1311	5.0	1.0	
5	Cadmium as Cd	mg/l	USEPA METHOD-1311	1.0	N.D.	
6	Chromium as Cr	mg/l	USEPA METHOD-1311	5.0	N.D.	
7	Arsenic as As	mg/l	USEPA METHOD-1311	5.0	N.D.	
8	Mercury as Hg	mg/l	USEPA METHOD-1311	0.2	N.D.	

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(Optional)	Contragai 2 00	For ULTIMATE ENVIROLYTICAL SOLUTIONS
15/03/2023		Belle
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REVIEWED BY	***	AUTHORIZED SIGNATORY

-----End of the test report-----

Annexure-VI



Date: 18.04.2023

Ref: 2022/HPSL/2023-24/2022

To, The Regional Officer, Regional Office, Chhattisgarh Environment Conservation Board, Commercial Complex, Chhattisgarh Housing Board Colony, **KABIR NAGAR, RAIPUR (C.G.)-492099** 

Sub: Fly ash utilization annual report / return for the financial year 2022-23

Respected Sir,

With reference to above cited subject, we are submitting herewith fly ash utilization annual Report/Return (Annexure-I) for the financial year 2022-23 (April 1<sup>st</sup> 2022 to March 31<sup>st</sup> 2023) for your ready reference and record, please.

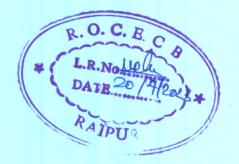
Fly ash is being disposed off by us systematically & scientifically as per Fly Ash Notification dated 14<sup>th</sup> September, 1999 and its amendments by MoEF&CC.

Kindly acknowledge the receipt of the same.

Thanking You,

Yours faithfully, For, **HIRA POWER AND STEELS LIMITED, UNIT – II** 

AUTHORIZED SIGNATORY



Encl: As above.

- CC: 1. The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhavan, North Block, Sector – 19, Atal Nagar, District - Raipur (C. G.) 492 002
  - 2. The Regional Director, Central Pollution Control Board, 3<sup>rd</sup> Floor, Sahkar Bhawan, North TT Nagar, Bhopal -462003
  - 3. The Scientist, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Aranya Bhawan, North Block, Sector-19, Atal Nagar, Nava Raipur District : Raipur (C. G.)-492 002.

Dist -R

Hira Power & Steels Limited An ISO 9001:2015 certified company CIN : U24117CT1984PLC002512

Registered Office & Works : Khasra No. 511/1, 512/2, Urla Industrial Complex, Raipur - 492003, Chhattisgarh, India P : +91 771 4082500, 4082600, F : +91 771 4082501, E : admin@hpslindia.com

www.hpslindia.com, www.hiragroupindia.com



\*Note - Our Captive Power plant is under Temporary Shutdown from 11.11.2022

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HIRA POWER & STEELS LIMITED, (UNIT – II)

Khasra No. 511/1, 512/2, Urla Industrial Complex, Raipur (C.G.) – 492 003

FLY ASH GENERATION & UTILIZATION REPORT FOR THE FINANCIAL YEAR 2022-23 (April 1st 2022 to March 31th 2023)

Annexure - I



# PLANTATION: SURVEY & EVALUATION REPORT OF M/s HIRA POWER & STEEL LTD. UNIT-II

C C C C



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	4. Year wise plantation description	2
	5. Plantation site	3
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## Evaluation of Greenbelt Development For

## M/s HIRA POWER & STEEL LTD. UNIT-II

## KHASRA No. 511/1, 512/2, URLA INDUSTRIAL COMPLEX, URLA, RAIPUR (C. G.)

Survey & Evaluation by –"Society for Environment & Integrated Development Raipur" Raipur (CG) PART - A

) ) )

## EXECUTIVE SUMMARY

#### **INTRODUCTION:**

M/s HIRA POWER & STEEL LIMITED is located at Urla industrial area, Raipur. District – Raipur (C.G.)

Regd. office – M/s Hira Power & Steel Limited- Unit – II, 511/1,512/2, Urla Industrial Complex, Raipur, Pin code – 492003 (C. G.)

### 1. ABOUT PROJECT

As per information provided by **M/s Hira Power & Steel Limited** Raipur, Details of project are as under:-

- I. EC-F-No. J-11011/836/2008-IA-II(I) MoEF, New Delhi-11003 for Ferro Alloy plant-600 MTPA for production of Low Medium Carbon Ferro Manganese (Ferro Alloys) -18,000 MTPA.
- II. Ferro Alloys 30,000 MTPA, Or 56,000 MTPA Pig Iron from 2×5.5 MVA Submerged Arc Furnaces.

III. Captive Power Plant - 20 MW

Three rows of plantation of native species have been developed all along the periphery of plant. Tree density is approximate 2500 per ha. Development of green belt and other forms of greenery like road side and village level plantation in the nearest village shall also help in improve ecological conditions and biodiversity status of the study area. Green belt helps to capture the fugitive emission and attenuate the noise apart from improving the aesthetic quality of the region.



Plantation species act as bio-monitoring agent and helps in maintaining the project environment healthy by provide more oxygen. The two areas of air pollution by gases and by dust need to be urgently attended to, using plants. Keeping this in mind, mitigation measures have been suggested to develop green belt based on spatial and physical conditions of the areas "Green with Purpose" Drives.

Survey & Evaluation work was allotted by M/s HIRA POWER STEEL LTD. to our organization "Society for Environment & Integrated Development Raipur" Raipur (CG), work order was issued by M/s Hira Power & SteelLtd. vide S.O. No.7200003880/1/102Dated:25<sup>th</sup> April 2022 Plantation survey has been carried out by expert team with the help of M/s Hira Power & Steel Ltd. management and office staffs.

## 2. PROJECT OBJECTIVE

- I. Field Survey
- II. Verification of Plantation area
- III. Evaluation of Plantation area within and outside of plant premises.

## 3. AREA DESCRIPTION:

Hira Power & Steel Ltd. (Raipur) Plant – Total Land Area – 17.60 Ha. (Approx) (Plantation Area – 5.86 Hectare Approx)

## 4. YEAR WISE PLANTATION DESCRIPTION

During the field survey and field study by our technical team found that, plantation work was started from the year 1994-95 and is continued till date. The tree plantation has been carried out in a phased manner with local species. M/s HIRA POWER AND STEEL LTD. has planted 5.86 Hectare area which is 33.30% of total project area (17.60Hectare)



Plantation work was carried out within and outside of plant premises by the M/s HIRA POWER AND STEEL LTD. Year wise plantation is given in the Chart as per information provided by M/s HIRA POWER AND STEEL LTD.

### **5. PLANTATION SITES**

Plantation work has been along the plant boundary, inside the plant premises, roadside and aerodrome garden development area. Plantation area in the **Table: No. -1.** The information provided by M/s Hira Power & Steel Ltd.

S. n.	Year	Unit - II	Roadside	Aerodrome Garden
1.	Up to 2019-20	14000+1252	2600	2500
2.	2020-21	1326	0	0
3.	Gape Filings, 2021-22	500	4 <b>8</b> 0	0
4.	Total=	17078	3480	2500

#### Table: No. -1.

- I. At Unit -2, Plant Campus area.
  - a. Plant premises area.
  - b. Admin building (Office area)
- II. Roadside area.
- III. Airport Garden
- Roadside Plantation:
- Table: No. -2.

Sn.	Location of plantation	Length in Kilometer
	Unit -II main gate to Young India choak, Police Station around road both side	31/2 K.M. (Approx)

Boundary wall has been constructed on the places factory, Due to this construction expected damage from cattle were controlled.

Irrigation facility was also provided at five places by drip water pipe line and tanker due to this the growth of plants has observed very well.

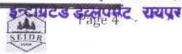
PART - B

## 1. PHYSICAL VERIFICATION AND EVALUATION OF PLANTATION (GREENBELT) (Casualty replacement (Gap filing) REPORT YEAR OF 2021-22.

	_	Ave	erage	Max	imum	Min	imum
SN	Species	Girth (cm)	Height (m)	Girth (cm)	Height (m)	Girth (cm)	Heigh (m)
1.	Peltophorum	7.7	2.56	14	4.20	3	1.35
2.	MoulShri (Bakul)	5.92	1.56	10	3	2	0.20
3.	Badam	2.19	7.33	8	2.40	6	1.90
4.	Cassia siamea	7.3	2.25	14	4	4	0.45
5.	Arjun (Kahuwa)	8.89	1.04	28	2.50	2	0.45
6.	Neem	6.44	2	10	3	5	1.20
7.	Karanj	8.09	1.71	12	2.00	2	0.30
8.	Akash Neem	7.66	2.05	10	2.40	6	1.90
9.	Alastoia	11.85	2.35	14	2.50	2	2.10
10.	Amaltas	3.4	1.57	7	9.50	2	0.20
11.	Conocarpes	5.06	1.62	8	2.20	3	0.40
12.	Arjun (Kahuwa)	6.89	1.04	15	2.50	4	0.45
13.	Bogunvelia	6.15	1.5	8	2.70	5	0.70
14.	Rain tree	8.05	1.58	12	2.50	3	0.60
15.	PultanJiva	7.66	2.05	10	2.40	6	1.90
16.	Kadamba	6.75	0.96	14	3.50	4	0.45
17.	Pipal	5.10	1.34	8	1.80	5	1.00
18.	Kaner	4.60	0.68	12	2.80	4	0.50

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Survey & Evaluation by: Society for Environment & Integrated Development Raipur



## Table: No. -4. Evaluation - Plantation and Causality Replacements

PLANTATION AREA	FINANCIAL YEAR	Planted Plants No.
Plant premises and admin building area	2019-20	15252
Aerodrome area	2019-20	2500
Roadside area	2020-21	3926
		21678
Causality Replacements (	Survived Plants during su	rvey 2021-22)
Plantation area	Financial Year	Planted Plants No.
Plant premises Unit- II	2021-22	500
Road Side (31/2 K.M. (Approx)	2021-22	480

#### Table: No. -5.

Total Plantation Area	Planted Plants	Survival as per survey	Survival %
5.86ha. +Road Side (3½ k.m. (Approx) and Aerodrome garden area	22658	18650	82%

## 2. METHODOLOGY

- I. Counting All Plants, Trees and Sapling of all sites are counted.
- II. Measurements Height and Girth of Trees, Plants and Sapling are taken randomly.
- III. Measurements are recorded.
- IV. Survival percentage was recorded.
- V. All planted areas were inspected.
- VI. Photographs have been taken so as to show real picture of plantation at the site details of species.



Survey & Evaluation by: Society for Environment & Integrated Development Raipur



## **3. GRADING OF PLANTATION**

GradeCard Year -2021-22

### A. Grading of Plantation on scale of 1 to 10

Qualitative Aspects	Survival	9.00
	Health of Plantation	8.00
	Maintenance	8.50
	Sustainability	8.00

## B. Grading of Project plantation on scale 1 to 10

. Picture of Plan	tation		ोसायटी फॉर इ	न्वायरमेंट एंड
Overall Grading of Plantation	Outstanding (Excellent) (8<10)	Very Good (5<8) 8.37	Good (3<5)	Poor (>3)

## 4. Picture of Plantation

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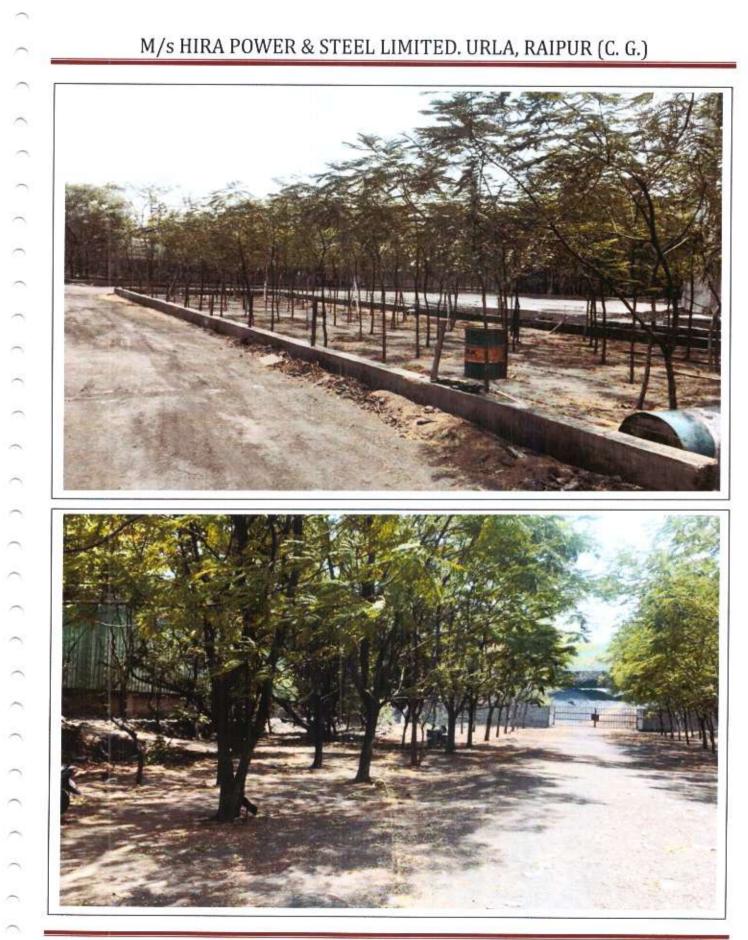
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Survey & Evaluation by: Society for Environment & Integrated Development Raipur



# CERTIFICATE

Certified that our Survey and Evaluation Expert Team Counted all Trees, Plants, Saplings of M/s HIRA POWER & STEEL Ltd., Industrial Complex, Urla, Raipur and Found18650of Total 22658 Planted Plants and Covered as Green Belt 7.46 Ha. (app.) Area.

DATE :18/05/2022

"SEIDR" सोसायटी फॉर इन्वायरमेंट एंड "SEIDR" इन्टीग्रेटेड डेव्सपमेंट रायपूर "SOCIETY FOR ENVIRONMENT & INTEGRATED DEVELOPMENT RAIPUR"



6. Pictures of Plantation

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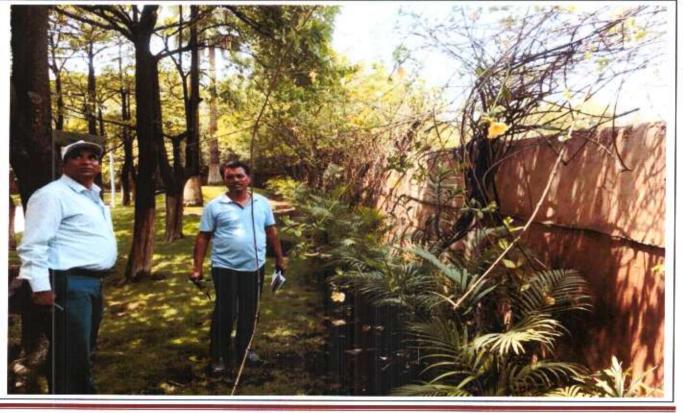
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Survey & Evaluation by: Society for Environment & Integrated Development Raipur





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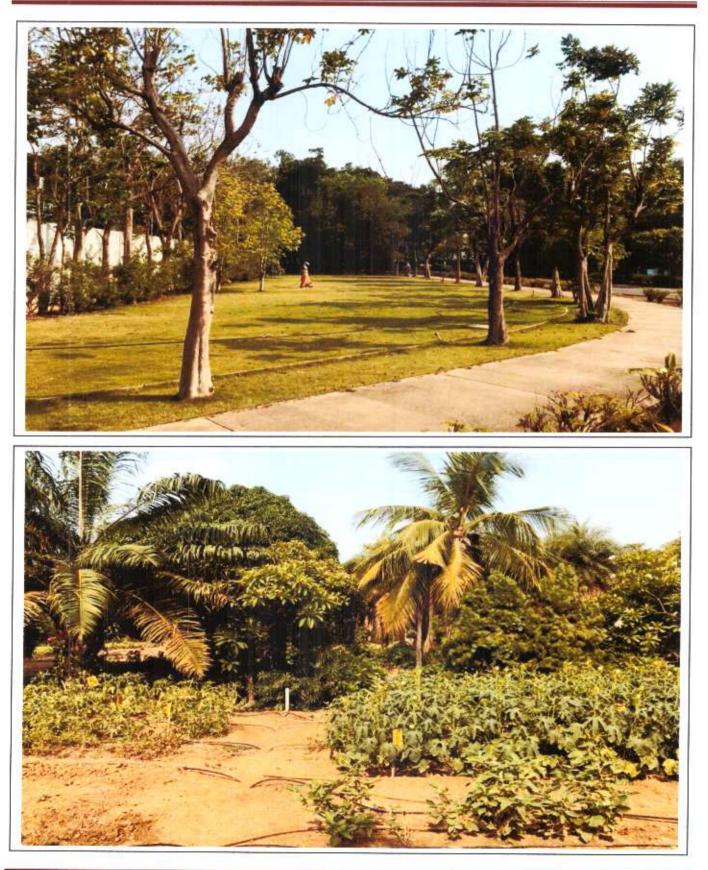
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### M/s HIRA POWER & STEEL LIMITED. URLA, RAIPUR (C. G.) 7. DISCUSSION WITH MANAGEMENT AND STAFF NAME AS UNDER : 1. Shri Aviral Tiwari • Senior Manager Environment 2. Shri Mahesh Verma Senior Officer Horticulture ŝ. 8. SUGGESTION FOR IMPROVEMENT : 1. Species - Fast growing to be planted. 2. Given priority to broader leaves plants. 3. Plant to be not less than one year in age and 1 meter height. 4. Space 2x2, 3x3 and maximum 4x4 according to maximum girth of trees after maturity. 5. Species may be chosen as under – Teak, Khamar, Kadamba, Acacia, Peltophorum,Conocarpus,Shisham, Pipal, Neem, Amaltas, Gulmohar, Karanja, Jamun, Bargad, Palm, Badam, Mahaneem, Bamboo etc. 6. Increase irrigation facility more to plants. 7. Soil of pits should be changed in hard soil area. 8. In waterlogged area "Kahuwa" (Arjun) should be planted. 9. Teak should be planted in hard soil area. 10. Plants to be planted regularly every year including mortality replacement. 11. Germination Time - Humic Oxide can be used for better results. 12. Manure - Compost, Vermi compost, DAP, Zhaim also to be used. 13. Termite and other pets control – Cholorocyper, Imida combine. 14. Planting work to be done in June and July. 15. Mortality should not be counted for increase in area. 16. It is compulsory to have a water pipe line for the proper growth of the planted plants. 17. Compound wall is very necessary for protection of plants. Damage by human and animal 18. Grazing should be prohibited strictly. सोग्गयटी फॉर इन्वायरमेंट एंड इन्टीग्रेटेड डेव्लपमेंट रायपुर



#### A WORD OF APPRECIATION

We appreciate all management officers and staff of M/s HIRA POWER &STEEL LTD. Who has taken step to develop the greenbelt & greenness of the area we found that sapling has been taken care well after plantation.

We appreciate the commitment and their efforts taken by the management for developing the greenbelt & greenery within & outside of plant premises.

> "SEIDR" सोसायटी फॉर इन्वायरमेंट एंड इन्टीग्रेटेड डेव्लपमेंट रायपूर (Society for Environment & Integrated Development Raipur)

> > Chhattisgarh

Survey & Evaluation by: Society for Environment & Integrated Development Raipur



Page 18

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#### THE TEAM INVOLVED IN SURVEY & EVALUATION

'No.	Name	JOB	EXPERIENCE
J.	Mr. D.K. Tiwari	Coordinator	14yrs Experience of monitoring & Evaluation work
2.	Shri Kamlesh Dubey	Investigator	6 yrs experience of field survey of organizational work
3.	Mr. Jasvir Singh Virdi	Investigator	5 yrs Experience of field survey of organizational work

#### 'EXECUTIVE BODY OF 'SEIDR'

Name	Experience
Mr. S. K. Roy	Retd. A.C.F. C.G Govt.
Smt. Shobha Mishra	Professional
Smt. Asha Tiwari	Professional
Mr. Kamlesh Duey	Self Employed
Mr. D.K. Tiwari	Professional
	Mr. S. K. Roy Smt. Shobha Mishra Smt. Asha Tiwari Mr. Kamlesh Duey

सांसायटी फॉर इन्वायरमेंट एंड इन्टीग्रेटेड डेव्लपमेंट रायपुर



#### ABOUT THE EVALUATION AGENCY

		Organization Profile
Name of Organization	Society for Environment & Integrated Develop	pment Raipur.(SEIDR)
Status	Non Government Organization (NGO)	
1	And working as development and welfare facilita	toy.
No.& Date of registration	C.G. State – 3270, Date – 01.03.2011, Registration under Society RegistrationAct 1973	Registration Detail
Resource center Address	] – 9/A, ShriRamnagar, phase – I Street – 11. P.O. – Shankar nagar Raipur (C.G.) 1	Pin – 492004.
Phone	+91 -771 - 3587611	
Chief Functionary	Mr. S. K. ROY (Retd. ACF Chhattisgarh Forest)	
Contact Person	Mr. D. K. Tiwari Mobile – 098261_86813, 096695_77114	
Mail at	seidraipur@gmail.com	
Bank with	State Bank of India, Vip Estate, colony Raipur (C.G.)	
Bank Account No.	Current A/C: 35731546062	
Branch IFSC Code:	SBIN0013004, SWIFT	
PAN	AAHAS36081.	

SEIDR MISSION

Is to release the creative energies resources and aspirations of the poor, especially tribes, dalits and women to seek and obtain opportunities for full effective sustainable participation in social, economic, political and cultural life of society and nation.

SEIDR VISION

mark at a

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SEIDR is society based on the values of gamine democracy, equality and peace for all its citizens, where people and government play their respective roles effectively with transparency and accountability.

Area of Operation Intensively in all districts of Chhattisgarh state, with trained technical and professional staff. सोसायटी फॉर इन्क्सयरमेंट एंड इन्टीग्रेटेड हेत्सप्राप्टेंट रायपुर Survey & Evaluation by: Society for Environment & Integrated Development Raipur Page 20 141 SELDR

#### **OTHER MEMBER OF EXECUTIVE BODY**

NO.	NAME	EXPERIENCE
Ι.	Mr. Varun Tiwari	Advocate
2.	Mr. PrabhatPanday	Electrical Engineer
3.	Mr. Jasveer sing	Professional
4.	Mr. AsheeshShrivastav	Businessman
5.	Mr. M.A. Sidqki	Retd. Forest Range Asst
6.	Mr. Laxmi Prasad Murchulia	Retd. Forester
7.	Smt. Nirmala Tiwari	Advocate
8.	Mr. Rahul Dubey	Wax chemist
9.	Mr. AkhilShrivastav	Professional
0.	Mr. Kamles Dubey	Professional

#### MEMBER OF ADVISORY COMMITTEE

No.	Name	Experience
1.	Mr. D. P. Varma	Hydro Geologist
2.	Mr. S. K. Shrivastava	Civil Engineer
3.	Mr. Varun Tiwari	Labor Court Advocate
4.	Mr. DilipShrivastava	Income tax Advisor

THANK YOU.

सांसायटी फॉर इन्वायरमेंट एंड इन्टीग्रेटेड डेव्लपमेंट रायपुर

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Survey & Evaluation by: Society for Environment & Integrated Development Raipur



Annexure-VIII

Format No. : UES/FORM/09



HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph : 0771 - 4027777 I Email : ultimatenviro@gmail.com

Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

Name & Address Of The Customer	REPORT NO.	REPORT NO. UES/TR/22-23/03783			
То,	LAB REF NO.	UES/22-23/ST/09330			
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING	11/10/2022			
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT	DATE OF RECEIPT 13/10/2022			
URLA INDUSTRIAL AREA	DATE OF REPORT	18/10/2022			
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:13/10/2022	End:18/10/2022		
	SAMPLE DETAILS	FRANKEN DE NICHTEN DE ESTERALEN DE ENTRE EN DE ENT	- A TOTAN CHARGE A REAL AND A TOTAL CHARGE AND A DATA AN		
Monitoring For	Stack Emission Monitoring	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	P.O. NO. 7200004006/U102, DATED: 16/06/2022			
Sampling Location	3.0 & 3.6 MVA Submerged	3.0 & 3.6 MVA Submerged Arc Furnace 'A &B' (Combine Stack)			
Sample Collected By	Laboratory Chemist				
Sampling Procedure		IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing		Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>X</sub> : 25 ml X 1 No. PVC Bottle, Rubber Bladder: 1 X 1 No.,			

#### **TEST REPORT**

Stack details				
Stack Identity				3.0 & 3.6 MVA SUBMERGED ARC FURNACE 'A & B' (COMBINE STACK)
Stack Attached To	BAG FILTER			
Material of Construction	MILD STEEL PLATE			
Height of the stack from ground leve	l (Meter)			30.0 MTR
Stack Diameter	1.4 MTR			
Stack Shape At Top	CIRCULAR			
Type of Fuel	ELECTRICITY			
Total Electrical Load (KW)	3.0 MVA & 3.6 MVA			
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	- 4023	110
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008		12.8
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008	- 31	55163.9
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	34.6

REMARKS: RESULTS ARE AS ABOVE

- Terms & conditions
- > The use of the report for publication, arbitration or as legal dispute is forbidden.

Fest sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

> This is for information as the party has asked for above test(s) only



-----End of the test report-----



HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph : 0771 - 4027777 I Email : ultimatenviro@gmail.com

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Name & Address Of The Customer	REPORT NO.	UES/TR/22-23/03784		
То,	LAB REF NO.	UES/22-23/ST/09331		
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING	11/10/2022		
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT	13/10/2022         18/10/2022         Start:13/10/2022         End:18/10/2022		
URLA INDUSTRIAL AREA	DATE OF REPORT			
RAIPUR (C. G.) 492003	DATE OF ANALYSIS			
	SAMPLE DETAILS			
Monitoring For	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/06/2022			
Sampling Location	5.5 MVA Submerged Arc Fi	urnace 'C'		
Sample Collected By	Laboratory Chemist			
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>X</sub> : 25 ml X 1 No. PVC Bottle, Rubber Bladder: 1 X 1 No.,			

#### **TEST REPORT**

#### Stack details

Stack Identity				5.5 MVA SUBMERGED ARC FURNACE 'C'
Stack Attached To				BAG FILTER
Material of Construction				MILD STEEL PLATE
Height of the stack from ground leve	(Meter)			35.0 MTR
Stack Diameter				1.4 MTR
Stack Shape At Top	CIRCULAR			
Type of Fuel	ELECTRICITY			
Total Electrical Load (KW)	5.5 MVA			
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	-	114
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	-	13.8
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008		58858.9
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	40.8

REMARKS: RESULTS ARE AS ABOVE

- Terms & conditions
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- > Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.
- > This is for information as the party has asked for above test(s) only





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Name & Address Of The Customer	REPORT NO. UES/TR/22-23/03785				
То,	LAB REF NO.	UES/22-23/ST/09332			
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING	11/10/2022         13/10/2022         18/10/2022         Start:13/10/2022         End:18/10/2022			
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT				
URLA INDUSTRIAL AREA	DATE OF REPORT				
RAIPUR (C. G.) 492003	DATE OF ANALYSIS				
	SAMPLE DETAILS		n na sana na sa		
Monitoring For	Stack Emission Monitoring				
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	P.O. NO. 7200004006/U102, DATED: 16/06/2022			
Sampling Location	5.5 MVA Submerged Arc Fi	urnace 'D'			
Sample Collected By	Laboratory Chemist				
Sampling Procedure		IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing		Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>x</sub> : 25 ml X 1 No. PVC Bottle, Rubber Bladder: 1 X 1 No.,			

		<b>TEST REPORT</b>		
Stack details			an a	n
Stack Identity				5.5 MVA SUBMERGED ARC FURNACE 'D'
Stack Attached To				BAG FILTER
Material of Construction				MILD STEEL PLATE
Height of the stack from ground leve	l (Meter)			35.0 MTR
Stack Diameter				1.4 MTR
Stack Shape At Top	CIRCULAR			
Type of Fuel	1.2.2			ELECTRICITY
Total Electrical Load (KW)				5.5 MVA
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	-	114
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	-	9.68
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008	- 6	41286.5
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	34.6

#### REMARKS: RESULTS ARE AS ABOVE

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Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer. A

This is for information as the party has asked for above test(s) only A

Relle 18/10/22 **REVIEWED BY** 



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For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

End of the test report-



HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph : 0771 - 4027777 I Email : ultimatenviro@gmail.com

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Name & Address Of The Customer	REPORT NO. UES/TR/22-23/03786				
То,	LAB REF NO.	UES/22-23/ST/09333			
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING	11/10/2022         13/10/2022         18/10/2022			
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT				
URLA INDUSTRIAL AREA	DATE OF REPORT				
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:13/10/2022	End:18/10/2022		
	SAMPLE DETAILS	n an	na Dažna prova Kanadorova Besno Kanana Navažkova povodova se se		
Monitoring For	Stack Emission Monitoring	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	P.O. NO. 7200004006/U102, DATED: 16/06/2022			
Sampling Location	6 MVA Submerged Arc Fur	nace 'E'			
Sample Collected By	Laboratory Chemist				
Sampling Procedure		IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 Rubber Bladder: 1 X 1 No.,	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>X</sub> : 25 ml X 1 No. PVC Bottle,			

#### **TEST REPORT**

S	ta	ck	d	e	t	a	i	1	S

Stack Identity				6 MVA SUBMERGED ARC FURNACE 'E'
Stack Attached To				BAG FILTER
Material of Construction	MILD STEEL PLATE			
Height of the stack from ground leve	40.0 MTR			
Stack Diameter	2.0 MTR			
Stack Shape At Top	CIRCULAR			
Type of Fuel	ELECTRICITY			
Total Electrical Load (KW)	6.0 MVA			
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	-	112
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	-	8.4
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008		73496.5
Total Particulate Matter (TPM)	mg∕Nm <sup>³</sup>	IS :11255 :(Part -1):1985, RA 2003	50	32.6

REMARKS: RESULTS ARE AS ABOVE

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----End of the test report-----



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Name & Address Of The Customer	REPORT NO.	UES/TR/22-23/03787		
То,	LAB REF NO.	UES/22-23/ST/09334		
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING	11/10/2022         13/10/2022         18/10/2022		
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT			
URLA INDUSTRIAL AREA	DATE OF REPORT			
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:13/10/2022	End:18/10/2022	
	SAMPLE DETAILS			
Monitoring For	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022		
Sampling Location	CLU Converter & Thermite (Combine Stack)			
Sample Collected By	Laboratory Chemist			
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>X</sub> : 25 ml X 1 No. PVC Bottle, Rubber Bladder: 1 X 1 No.,			

#### **TEST REPORT**

Stack Identity	ack Identity					
Stack Attached To	BAG FILTER					
Material of Construction	MILD STEEL PLATE					
Height of the stack from ground leve	35.0 MTR					
Stack Diameter	2.295 MTR					
Stack Shape At Top	CIRCULAR					
Type of Fuel	ELECTRICITY					
Total Electrical Load (KW)			100	650 KW		
Parameter	Unit	Method Reference	Limit	Result		
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	-	108		
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	-	9.6		
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008	-	111763.5		
Total Particulate Matter (TPM)	mg∕ <mark>Nm<sup>³</sup></mark>	IS :11255 :(Part -1):1985, RA 2003	40	26.8		

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> This is for information as the party has asked for above test(s) only

For ULTIMATE ENVIROLYTICAL SOLUTIONS Rell 18/10/22 **REVIEWED BY** AUTHORIZED SIGNATORY

-----End of the test report----



HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph : 0771 - 4027777 I Email : ultimatenviro@gmail.com

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Name & Address Of The Customer	REPORT NO.	PT 13/10/2022		
То,	LAB REF NO.			
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING			
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT			
URLA INDUSTRIAL AREA	DATE OF REPORT			
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:13/10/2022	End:18/10/2022	
	SAMPLE DETAILS	inen in die staar die eerste die genoemde genoemde en die staar die staar die staar die staar die staar die sta Genoemde die staar die	TRANSPORT CONTRACTOR STREET, CONTRACTOR STREET, CONTRACTOR STREET, CONTRACTOR STREET, CONTRACTOR STREET, CONTRA	
Monitoring For	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022		
Sampling Location	20 MW AFBC			
Sample Collected By	Laboratory Chemist			
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>X</sub> : 25 ml X 1 No. PVC Bottle Rubber Bladder: 1 X 1 No.,			

		TEST REPORT		
Stack details		an den an sear an		a ferrande en antier en en en antier en
Stack Identity				20 MW AFBC
Stack Attached To	ESP			
Material of Construction		Province and the second s		RCC
Height of the stack from ground leve	l (Meter)			73.0 MTR
Stack Diameter				2.83 MTR
Stack Shape At Top	CIRCULAR			
Type of Fuel	COAL			
Total Electrical Load (KW)	20 KW			
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008		126
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	-	20.8
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008	<b>-</b> (5) (5) (5)	351597.4
Sulphur Dioxide (SO <sub>2</sub> )	mg/Nm <sup>3</sup>	IS 11255 (Part 2):1985, RA 2003	600	254
Oxides of Nitrogen (NOx)	mg/Nm <sup>3</sup>	IS 11255 (Part 7):2005, RA 2012	300	124
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	42.8
Carbon Monoxide (CO)	mg/ Nm <sup>3</sup>	IS 13270:2019	-	6.8
Hg	mg/ Nm <sup>3</sup>	USEPA Method No. 29	0.03	N.D.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

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> This is for information as the party has asked for above test(s) only



-----End of the test report-----End of the test report-----



HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph: 0771 - 4027777 I Email : ultimatenviro@gmail.com

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Name & Address Of The Customer	REPORT NO.	UES/TR/22-23/04502	2	
То,	LAB REF NO.	UES/22-23/ST/10342 NG 22/11/2022 23/11/2022		
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING			
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT			
URLA INDUSTRIAL AREA	DATE OF REPORT	28/11/2022		
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start: 23/11/2022	End: 28/11/2022	
	SAMPLE DETAILS		n ferselik serenda antara ang kapanan ang kapanan ang kapanan ang kapanan ang kapanan ang kapanan kapanan kapan	
Monitoring For	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022		
Sampling Location	3.0 & 3.6 MVA Submerged	Arc Furnace 'A &B' (Combine	e Stack)	
Sample Collected By	Laboratory Chemist			
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>X</sub> : 25 ml X 1 No. PVC Bottle Rubber Bladder: 1 X 1 No.,			

#### **TEST REPORT**

Stack details				
Stack Identity	3.0 & 3.6 MVA SUBMERGED ARC FURNACE 'A & B' (COMBINE STACK)			
Stack Attached To				BAG FILTER
Material of Construction	MILD STEEL PLATE			
Height of the stack from ground leve	l (Meter)			30.0 MTR
Stack Diameter				1.4 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel				ELECTRICITY
Total Electrical Load (KW)				3.0 MVA & 3.6 MVA
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008		108
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008		12.4
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008	-	53720.6
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	35.9

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Name & Address Of The Customer	REPORT NO.	UES/TR/22-23/04503	3	
То,	LAB REF NO.	UES/22-23/ST/10343 NG 22/11/2022		
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING			
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT	23/11/2022 28/11/2022		
URLA INDUSTRIAL AREA	DATE OF REPORT			
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start: 23/11/2022	End: 28/11/2022	
	SAMPLE DETAILS	na mana kana kana mangangang sa sang kana na mangana kana kana kana kana kana kana kan	anneynet fondaraðing fildarandi angar higa angar sagar a	
Monitoring For	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022		
Sampling Location	5.5 MVA Submerged Arc Fu	urnace 'C'		
Sample Collected By	Laboratory Chemist			
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>X</sub> : 25 ml X 1 No. PVC Bottle Rubber Bladder: 1 X 1 No.,			

#### **TEST REPORT**

				5.5 MVA SUBMERGED ARC
Stack Identity				
				FURNACE 'C'
Stack Attached To				BAG FILTER
Material of Construction	S. 1877			MILD STEEL PLATE
Height of the stack from ground leve	35.0 MTR			
Stack Diameter				1.4 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel			205324	ELECTRICITY
Total Electrical Load (KW)				5.5 MVA
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008		120
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008		14.1
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008	-	59220.4
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	42.8

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28/11/2022 **REVIEWED BY** 





End of the test report-



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Name & Address Of The Customer	REPORT NO.	UES/TR/22-23/4504		
То,	LAB REF NO.	UES/22-23/ST/10344 22/11/2022 23/11/2022 28/11/2022		
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING			
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT			
URLA INDUSTRIAL AREA	DATE OF REPORT			
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start: 23/11/2022	End: 28/11/2022	
	SAMPLE DETAILS			
Monitoring For	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022		
Sampling Location	5.5 MVA Submerged Arc Fi	urnace 'D'		
Sample Collected By	Laboratory Chemist			
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>X</sub> : 25 ml X 1 No. PVC Bottle Rubber Bladder: 1 X 1 No.,			

		TEST REPORT		
Stack details			n ben an fan de fan Fan de fan de	n i kana kana sa kana kana kana kana kana k
Stack Identity				5.5 MVA SUBMERGED ARC FURNACE 'D'
Stack Attached To				BAG FILTER
Material of Construction	MILD STEEL PLATE			
Height of the stack from ground leve	l (Meter)			35.0 MTR
Stack Diameter	1.4 MTR			
Stack Shape At Top	CIRCULAR			
Type of Fuel	ELECTRICITY			
Total Electrical Load (KW)				5.5 MVA
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	-	118
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008		8.9
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008	- 197	37571.4
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	35.7

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Name & Address Of The Customer	REPORT NO. UES/TR/22-23/4505				
то,	LAB REF NO.	UES/22-23/ST/10345			
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING	22/11/2022			
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT	23/11/2022 28/11/2022			
URLA INDUSTRIAL AREA	DATE OF REPORT				
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start: 23/11/2022	End: 28/11/2022		
S	SAMPLE DETAILS	en son fan heren en e			
Monitoring For	Stack Emission Monitoring				
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022			
Sampling Location	6 MVA Submerged Arc Fur	nace 'E'			
Sample Collected By	Laboratory Chemist				
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003				
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>X</sub> : 25 ml X 1 No. PVC Bottle Rubber Bladder: 1 X 1 No.,				

### **TEST REPORT**

61 1 1 1 1 1 1				6 MVA SUBMERGED ARC
Stack Identity				FURNACE 'E'
Stack Attached To				BAG FILTER
Material of Construction				MILD STEEL PLATE
Height of the stack from ground leve	l (Meter)			40.0 MTR
Stack Diameter				2.0 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel				ELECTRICITY
Total Electrical Load (KW)				6.0 MVA
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	- 35	109
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	-	7.9
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008		69664.6
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	33.9

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Thimble: 1 X 1 No., SO2: 30 ml X 1 No. PVC Bottle, NOx: 25 ml X 1 No. PVC Bottle,



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Name & Address Of The Customer	REPORT NO. UES/TR/22-23/04810					
То,	LAB REF NO.	UES/22-23/ST/011016				
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING	22/11/2022				
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT	23/11/2022	23/11/2022			
URLA INDUSTRIAL AREA	DATE OF REPORT	28/11/2022				
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:23/11/2022	End:28/11/2022			
SZ	AMPLE DETAILS					
Monitoring For	Stack Emission Monitoring	Stack Emission Monitoring				
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022				
Sampling Location	CLU Converter & Thermite	CLU Converter & Thermite (Combine Stack)				
Sample Collected By	Laboratory Chemist	Laboratory Chemist				
Sampling Procedure	-	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003				

# Sampling Procedure Sample Quantity/Packing

### **TEST REPORT**

Rubber Bladder: 1 X 1 No.,

Stack details				
Stack Identity				CLU CONVERTER & THERMITE (COMBINE STACK)
Stack Attached To				BAG FILTER
Material of Construction				MILD STEEL PLATE
Height of the stack from ground leve	l (Meter)			35.0 MTR
Stack Diameter				2.295 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel				ELECTRICITY
Total Electrical Load (KW)				650 KW
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	-	112
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	-	10.2
Total Gas Quantity	Nm³/h	IS :11255: (Part -3):2008	-	117003.5
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	40	27.2

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Thimble: 1 X 1 No., SO<sub>2</sub>: 30 ml X 1 No. PVC Bottle, NO<sub>X</sub>: 25 ml X 1 No. PVC Bottle,



Sample Quantity/Packing

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Name & Address Of The Customer	REPORT NO.	REPORT NO. UES/TR/22-23/04811				
То,	LAB REF NO.	UES/22-23/ST/011017				
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING	22/11/2022				
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT 23/11/2022					
URLA INDUSTRIAL AREA	DATE OF REPORT	28/11/2022				
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:23/11/2022	End:28/11/2022			
	SAMPLE DETAILS					
Monitoring For	Stack Emission Monitoring	Stack Emission Monitoring				
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022				
Sampling Location	20 MW AFBC	20 MW AFBC				
Sample Collected By	Laboratory Chemist	Laboratory Chemist				
Sampling Procedure		IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003				

### **TEST REPORT**

Rubber Bladder: 1 X 1 No.,

Stack details				
Stack Identity				20 MW AFBC
Stack Attached To				ESP
Material of Construction				RCC
Height of the stack from ground leve	l (Meter)			73.0 MTR
Stack Diameter				2.83 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel				COAL
Total Electrical Load (KW)				20 KW
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	-	129
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	-	21.8
Total Gas Quantity	Nm³/h	IS :11255: (Part -3):2008		365756.2
Sulphur Dioxide (SO <sub>2</sub> )	mg/Nm <sup>3</sup>	IS 11255 (Part 2):1985, RA 2003	600	249
Oxides of Nitrogen (NOx)	mg/Nm <sup>3</sup>	IS 11255 (Part 7):2005, RA 2012	300	131
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	43.1
Carbon Monoxide (CO)	mg/ Nm <sup>3</sup>	IS 13270:2019	-	6.3
Hg	mg/ Nm <sup>3</sup>	USEPA Method No. 29	0.03	N.D.

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-----End of the test report-----



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Name & Address Of The Customer	REPORT NO.	UES/TR/22-23/05406 UES/22-23/ST/012122		
То,	LAB REF NO.			
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING	19/12/2022		
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT	20/12/2022		
URLA INDUSTRIAL AREA	DATE OF REPORT	24/12/2022		
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:20/12/2022	End:24/12/2022	
	SAMPLE DETAILS			
Monitoring For	Stack Emission Monitoring	5		
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022		
Sampling Location	3.0 & 3.6 MVA Submerged	Arc Furnace 'A &B' (Combin	e Stack)	
Sample Collected By	Laboratory Chemist			
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>x</sub> : 25 ml X 1 No. PVC Bottl Rubber Bladder: 1 X 1 No.,			

# TEST REPORT

Stack details				3.0 & 3.6 MVA SUBMERGED ARC
Stack Identity	FURNACE 'A & B' (COMBINE STACK)			
Stack Attached To				BAG FILTER
Material of Construction				MILD STEEL PLATE
Height of the stack from ground leve	l (Meter)			30.0 MTR
Stack Diameter		- Alter Market	1. Sec. 19	1.4 MTR
Stack Shape At Top			Neise	CIRCULAR
Type of Fuel				ELECTRICITY
Total Electrical Load (KW)				3.0 MVA & 3.6 MVA
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	· - 600	112
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	- 6	13.5
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008		57878.5
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	33.6

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То,	LAB REF NO.	UES/22-23/ST/012123 19/12/2022 20/12/2022 24/12/2022			
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING				
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT				
URLA INDUSTRIAL AREA	DATE OF REPORT				
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:20/12/2022	End:24/12/2022		
	SAMPLE DETAILS				
Monitoring For	Stack Emission Monitoring				
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022	_		
Sampling Location	5.5 MVA Submerged Arc F	urnace 'C'			
Sample Collected By	Laboratory Chemist				
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003				
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>x</sub> : 25 ml X 1 No. PVC Bottle Rubber Bladder: 1 X 1 No.,				

		TEST REPORT		
Stack details				
Stack Identity				5.5 MVA SUBMERGED ARC FURNACE 'C'
Stack Attached To				BAG FILTER
Material of Construction				MILD STEEL PLATE
Height of the stack from ground leve	l (Meter)			35.0 MTR
Stack Diameter				1.4 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel				ELECTRICITY
Total Electrical Load (KW)				5.5 MVA
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	- 5 - 5 - 5	116
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	n, / -	14.3
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008		60678.0
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	38.9

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Name & Address Of The Customer	REPORT NO. UES/TR/22-23/05408				
То,	LAB REF NO.	UES/22-23/ST/012124 19/12/2022 20/12/2022 24/12/2022			
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING				
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT				
URLA INDUSTRIAL AREA	DATE OF REPORT				
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:20/12/2022	End:24/12/2022		
	SAMPLE DETAILS				
Monitoring For	Stack Emission Monitoring				
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022			
Sampling Location	5.5 MVA Submerged Arc Furnace 'D'				
Sample Collected By	Laboratory Chemist				
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10):2003				

Sample Quantity/Packing

Rubber Bladder: 1 X 1 No.,

2012, IS 5182 (Part 10) :2003

Thimble: 1 X 1 No., SO<sub>2</sub>: 30 ml X 1 No. PVC Bottle, NO<sub>x</sub>: 25 ml X 1 No. PVC Bottle,

		TEST REPORT		
Stack details				
Stack Identity				5.5 MVA SUBMERGED ARC FURNACE 'D'
Stack Attached To				BAG FILTER
Material of Construction				MILD STEEL PLATE
Height of the stack from ground leve	l (Meter)			35.0 MTR
Stack Diameter			12	1.4 MTR
Stack Shape At Top			10.00	CIRCULAR
Type of Fuel				ELECTRICITY
Total Electrical Load (KW)				5.5 MVA
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	I <mark>S:1125</mark> 5: (Part -3):2008		115
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	<u> </u>	10.8
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008	<u>an/a -</u>	45944.8
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	36.8

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Name & Address Of The Customer	REPORT NO.	UES/TR/22-23/05409			
То,	LAB REF NO.	UES/22-23/ST/012125			
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING	19/12/2022 20/12/2022			
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT				
URLA INDUSTRIAL AREA	DATE OF REPORT	24/12/2022 Start:20/12/2022 End:24/12/2022			
RAIPUR (C. G.) 492003	DATE OF ANALYSIS				
	SAMPLE DETAILS	<b>王马</b> 王王 # 173			
Monitoring For	Stack Emission Monitoring				
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/06/2022				
Sampling Location	6 MVA Submerged Arc Fu	rnace 'E'			
Sample Collected By	Laboratory Chemist				
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003				
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>x</sub> : 25 ml X 1 No. PVC Bottle, Rubber Bladder: 1 X 1 No.,				

		TEST REPORT		
Stack details				
Stack Identity				6 MVA SUBMERGED ARC FURNACE 'E'
Stack Attached To				BAG FILTER
Material of Construction				MILD STEEL PLATE
Height of the stack from ground leve	l (Meter)			40.0 MTR
Stack Diameter				2.0 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel				ELECTRICITY
Total Electrical Load (KW)				6.0 MVA
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	I <mark>S:1125</mark> 5: (Part -3):2008	-	114
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	<u>-</u>	9.4
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008		81821.1
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	34.4

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Name & Address Of The Customer	REPORT NO.	REPORT NO. UES/TR/22-23/05410		
То,	LAB REF NO.	UES/22-23/ST/012126 19/12/2022 20/12/2022 24/12/2022 Start:20/12/2022 End:24/12/2022		
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING			
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT			
URLA INDUSTRIAL AREA	DATE OF REPORT			
RAIPUR (C. G.) 492003	DATE OF ANALYSIS			
	SAMPLE DETAILS			
Monitoring For	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/06/2022			
Sampling Location	CLU Converter &Thermite (Combine Stack)			
Sample Collected By	Laboratory Chemist			
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>x</sub> : 25 ml X 1 No. PVC Bottle, Rubber Bladder: 1 X 1 No.,			

### **TEST REPORT**

Stack Identity				CLU CONVERTER & THERMITE (COMBINE STACK)
Stack Attached To				BAG FILTER
Material of Construction				MILD STEEL PLATE
Height of the stack from ground leve	l (Meter)			35.0 MTR
Stack Diameter		ALL		2.295 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel				ELECTRICITY
Total Electrical Load (KW)				650 KW
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	-	110
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	<u> </u>	10.3
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008	<b>m</b> i. /	119286.8
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	40	29.8

REMARKS: RESULTS ARE AS ABOVE

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-----End of the test report-----End of the test report-----



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Name & Address Of The Customer	REPORT NO.	ORT NO. UES/TR/22-23/05411			
То,	LAB REF NO.	UES/22-23/ST/012127         19/12/2022         20/12/2022         24/12/2022         Start:20/12/2022         End:24/12/2022			
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING				
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT				
URLA INDUSTRIAL AREA	DATE OF REPORT				
RAIPUR (C. G.) 492003	DATE OF ANALYSIS				
	SAMPLE DETAILS				
Monitoring For	Stack Emission Monitoring				
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/06/2022				
Sampling Location	20 MW AFBC				
Sample Collected By	Laboratory Chemist				
Sampling Procedure	and the second statement of the second statements	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing		Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>X</sub> : 25 ml X 1 No. PVC Bottle Rubber Bladder: 1 X 1 No.,			

		TEST REPORT		
Stack details				
Stack Identity				20 MW AFBC
Stack Attached To				ESP
Material of Construction				RCC
Height of the stack from ground leve	l (Meter)			73.0 MTR
Stack Diameter				2.83 MTR
Stack Shape At Top		·		CIRCULAR
Type of Fuel				COAL
Total Electrical Load (KW)				20 KW
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	-	128
Flue Gas Velocity	M/s	I <mark>S :112</mark> 55 :(Part -3):2008	-	20.
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008	-	361622.4
Sulphur Dioxide (SO <sub>2</sub> )	mg/Nm <sup>3</sup>	IS 11255 (Part 2):1985, RA 2003	600	248
Oxides of Nitrogen (NOx)	mg/Nm <sup>3</sup>	IS 11255 (Part 7):2005, RA 2012	300	122
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	41.2
Carbon Monoxide (CO)	mg/ Nm <sup>3</sup>	IS 13270:2019	naam <sup>-</sup>	6.2
Hg	mg/ Nm <sup>3</sup>	USEPA Method No. 29	0.03	N.D.

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Name & Address Of The Customer	REPORT NO.	UES/TR/22-23/06724		
То,	LAB REF NO.	UES/22-23/ST/014128 12/01/2023 13/01/2023 17/01/2023 Start: 13/01/2023 End: 17/01/202		
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING			
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT			
URLA INDUSTRIAL AREA	DATE OF REPORT			
RAIPUR (C. G.) 492003	DATE OF ANALYSIS			
	SAMPLE DETAILS			
Monitoring For	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022		
Sampling Location	3.0 & 3.6 MVA Submerged	Arc Furnace 'A &B' (Combine	e Stack)	
Sample Collected By	Laboratory Chemist			
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>x</sub> : 25 ml X 1 No. PVC Bottle Rubber Bladder: 1 X 1 No.,			

TEST REPORT					
Stack details		en nue			
Stack Identity				3.0 & 3.6 MVA SUBMERGED ARC FURNACE 'A & B' (COMBINE STACK	
Stack Attached To				BAG FILTER	
Material of Construction		e e e e e e e e e e e e e e e e e e e		MILD STEEL PLATE	
Height of the stack from ground leve	l (Meter)			30.0 MTR	
Stack Diameter				1.4 MTR	
Stack Shape At Top				CIRCULAR	
Type of Fuel				ELECTRICITY	
Total Electrical Load (KW)				3.0 MVA & 3.6 MVA	
Parameter	Unit	Method Reference	Limit	Result	
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	n /	62.3	
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	<b>-</b> / /	15.06	
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008	-	74137.2	
Total Particulate Matter (TPM)	mg/Nm³	IS :11255 :(Part -1):1985, RA 2003	50	34.2	

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Name & Address Of The Customer	REPORT NO.	UES/TR/22-23/06725		
То,	LAB REF NO.	UES/22-23/ST/014129           12/01/2023           13/01/2023           17/01/2023           Start: 13/01/2023           End: 17/01/2023		
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING			
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT			
URLA INDUSTRIAL AREA	DATE OF REPORT			
RAIPUR (C. G.) 492003	DATE OF ANALYSIS			
	SAMPLE DETAILS			
Monitoring For	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022		
Sampling Location	5.5 MVA Submerged Arc Fi	urnace 'C'		
Sample Collected By	Laboratory Chemist			
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>x</sub> : 25 ml X 1 No. PVC Bottle Rubber Bladder: 1 X 1 No.,			

		TEST REPORT		
Stack details	A			
Stack Identity				5.5 MVA SUBMERGED ARC FURNACE 'C'
Stack Attached To				BAG FILTER
Material of Construction				MILD STEEL PLATE
Height of the stack from ground leve	l (Meter)			35.0 MTR
Stack Diameter				1.4 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel				ELECTRICITY
Total Electrical Load (KW)				5.5 MVA
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	the - Aris	83.1
Flue Gas Velocity	M/s	IS:11255:(Part -3):2008	1015 ARE	6.97
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008		32307.6
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	39.4

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Name & Address Of The Customer	REPORT NO. UES/TR/22-23/06726			
То,	LAB REF NO.	UES/22-23/ST/014130		
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING 12/01/2023			
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT	13/01/2023 17/01/2023		
URLA INDUSTRIAL AREA	DATE OF REPORT			
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start: 13/01/2023	End: 17/01/2023	
	SAMPLE DETAILS			
Monitoring For	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022		
Sampling Location	5.5 MVA Submerged Arc Fi	urnace 'D'		
Sample Collected By	Laboratory Chemist			
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>x</sub> : 25 ml X 1 No. PVC Bottl Rubber Bladder: 1 X 1 No.,			

#### **TEST REPORT** Stack details 5.5 MVA SUBMERGED ARC Stack Identity FURNACE 'D' Stack Attached To **BAG FILTER** Material of Construction MILD STEEL PLATE Height of the stack from ground level (Meter) 35.0 MTR Stack Diameter 1.4 MTR Stack Shape At Top CIRCULAR Type of Fuel ELECTRICITY Total Electrical Load (KW) 5.5 MVA Parameter **Method Reference** Unit Limit Result Flue Gas Temperature °C IS:11255: (Part -3):2008 88.5 -Flue Gas Velocity M/s IS:11255:(Part -3):2008 6.76 **Total Gas Quantity** Nm<sup>3</sup>/h IS :11255: (Part -3):2008 30866.2 IS :11255 :(Part -1):1985, RA Total Particulate Matter (TPM) mg/Nm<sup>3</sup> 50 37.0 2003

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Name & Address Of The Customer	REPORT NO. UES/TR/22-23/06727			
То,	LAB REF NO.	UES/22-23/ST/014131		
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING 12/01/2023			
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT	13/01/2023 17/01/2023		
URLA INDUSTRIAL AREA	DATE OF REPORT			
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start: 13/01/2023	End: 17/01/2023	
	SAMPLE DETAILS			
Monitoring For	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022		
Sampling Location	6 MVA Submerged Arc Fu	rnace 'E'		
Sample Collected By	Laboratory Chemist			
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>x</sub> : 25 ml X 1 No. PVC Bottle Rubber Bladder: 1 X 1 No.,			

#### **TEST REPORT** Stack details 6 MVA SUBMERGED ARC Stack Identity FURNACE 'E' Stack Attached To **BAG FILTER** Material of Construction MILD STEEL PLATE Height of the stack from ground level (Meter) 40.0 MTR Stack Diameter 2.0 MTR Stack Shape At Top CIRCULAR Type of Fuel ELECTRICITY Total Electrical Load (KW) 6.0 MVA Parameter Unit **Method Reference** Limit Result Flue Gas Temperature °C IS:11255: (Part -3):2008 64.6 Flue Gas Velocity M/s IS:11255:(Part -3):2008 6.51 \_ **Total Gas Quantity** Nm<sup>3</sup>/h IS :11255: (Part -3):2008 64957.2 \_ IS :11255 :(Part -1):1985, RA Total Particulate Matter (TPM) mg/Nm<sup>3</sup> 50 34.9 2003

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Name & Address Of The Customer	REPORT NO. UES/TR/22-23/06728			
То,	LAB REF NO.	UES/22-23/ST/014132		
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING 12/01/2023			
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT			
URLA INDUSTRIAL AREA	DATE OF REPORT			
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start: 13/01/2023	End: 17/01/2023	
	SAMPLE DETAILS			
Monitoring For	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022		
Sampling Location	CLU Converter & Thermite	(Combine Stack)		
Sample Collected By	Laboratory Chemist			
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>x</sub> : 25 ml X 1 No. PVC Bottle Rubber Bladder: 1 X 1 No.,			

### TEST REPORT

Stack details				
Stack Identity				CLU CONVERTER & THERMITE (COMBINE STACK)
Stack Attached To		1012/168-1 <b>6</b>		BAG FILTER
Material of Construction		nel Him		MILD STEEL PLATE
Height of the stack from ground leve	l (Meter)		1.1	35.0 MTR
Stack Diameter				2.295 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel				ELECTRICITY
Total Electrical Load (KW)				650 KW
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	1h Ale	79.4
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	-/55	17.93
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008	-	225682.7
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	40	30.3

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Name & Address Of The Customer	REPORT NO.	UES/TR/22-23/0710	7	
То,	LAB REF NO.	UES/22-23/ST/014924		
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING 14/02/2023			
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT	15/02/2023 20/02/2023		
URLA INDUSTRIAL AREA	DATE OF REPORT			
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:15/02/2023	End:20/02/2023	
	SAMPLE DETAILS	Aller and the second		
Monitoring For	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022		
Sampling Location	3.0 & 3.6 MVA Submerged	Arc Furnace 'A &B' (Combin	e Stack)	
Sample Collected By	Laboratory Chemist			
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>x</sub> : 25 ml X 1 No. PVC Bottl Rubber Bladder: 1 X 1 No.,			

### **TEST REPORT**

### Stack details

Stack Identity	3.0 & 3.6 MVA SUBMERGED ARC FURNACE 'A & B' (COMBINE STACK)			
Stack Attached To				BAG FILTER
Material of Construction	MILD STEEL PLATE			
Height of the stack from ground leve	l (Meter)			30.0 MTR
Stack Diameter				1.4 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel				ELECTRICITY
Total Electrical Load (KW)				3.0 MVA & 3.6 MVA
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	-	69.0
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	-	15.11
Total Gas Quantity	Nm³/h	IS :11255: (Part -3):2008	-	72926.1
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	36.6

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Name & Address Of The Customer	REPORT NO. UES/TR/22-23/07108				
То,	LAB REF NO.	LAB REF NO. UES/22-23/ST/014925			
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING 14/02/2023				
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT	15/02/2023 20/02/2023			
URLA INDUSTRIAL AREA	DATE OF REPORT				
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:15/02/2023	End:20/02/2023		
	SAMPLE DETAILS				
Monitoring For	Stack Emission Monitoring	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022			
Sampling Location	5.5 MVA Submerged Arc Fu	urnace 'C'			
Sample Collected By	Laboratory Chemist				
Sampling Procedure	-	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 Rubber Bladder: 1 X 1 No.,	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>x</sub> : 25 ml X 1 No. PVC Bottle Rubber Bladder: 1 X 1 No.,			

Stack details				
Stack Identity				5.5 MVA SUBMERGED ARC FURNACE 'C'
Stack Attached To				BAG FILTER
Material of Construction				MILD STEEL PLATE
Height of the stack from ground leve	l (Meter)			35.0 MTR
Stack Diameter				1.4 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel				ELECTRICITY
Total Electrical Load (KW)				5.5 MVA
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	-	91.0
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	-	7.3
Total Gas Quantity	Nm³/h	IS :11255: (Part -3):2008	-	33102.9
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	38.2

**TEST REPORT** 

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	End of the test report-	



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Name & Address Of The Customer	REPORT NO.	UES/TR/22-23/0710	9	
То,	LAB REF NO.	UES/22-23/ST/014926		
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING 14/02/2023			
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT	15/02/2023 20/02/2023		
URLA INDUSTRIAL AREA	DATE OF REPORT			
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:15/02/2023	End:20/02/2023	
	SAMPLE DETAILS		a la se de la sectore de la	
Monitoring For	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	2, DATED: 16/06/2022		
Sampling Location	5.5 MVA Submerged Arc Fi	urnace 'D'		
Sample Collected By	Laboratory Chemist			
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing		Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>x</sub> : 25 ml X 1 No. PVC Bottle, Rubber Bladder: 1 X 1 No.,		

Stack details				
Stack Identity				5.5 MVA SUBMERGED ARC FURNACE 'D'
Stack Attached To				BAG FILTER
Material of Construction				MILD STEEL PLATE
Height of the stack from ground leve	l (Meter)			35.0 MTR
Stack Diameter				1.4 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel				ELECTRICITY
Total Electrical Load (KW)				5.5 MVA
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	-	89.0
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	-	7.07
Total Gas Quantity	Nm³/h	IS :11255: (Part -3):2008	-	32237.1
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	35.8

**TEST REPORT** 

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REVIEWED BY	11 1 - OHH + 10019 55	AUTHORIZED SIGNATORY		
End of the test report				



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Name & Address Of The Customer	REPORT NO. UES/TR/22-23/07110				
То,	LAB REF NO. UES/22-23/ST/014927				
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING 14/02/2023				
KHASRA NO.: 511/1, 512/2, URLA INDUSTRIAL AREA	DATE OF RECEIPT				
	DATE OF REPORT	20/02/2023			
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:15/02/2023	End:20/02/2023		
	SAMPLE DETAILS				
Monitoring For	Stack Emission Monitoring				
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/06/2022				
Sampling Location	6 MVA Submerged Arc Furnace 'E'				
Sample Collected By	Laboratory Chemist				
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003				
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>x</sub> : 25 ml X 1 No. PVC Bottl Rubber Bladder: 1 X 1 No.,				

### **TEST REPORT**

Stack	details

Stack Identity				6 MVA SUBMERGED ARC FURNACE 'E'
Stack Attached To				BAG FILTER
Material of Construction				MILD STEEL PLATE
Height of the stack from ground leve	l (Meter)			40.0 MTR
Stack Diameter				2.0 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel				ELECTRICITY
Total Electrical Load (KW)				6.0 MVA
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	-	92.0
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	-	7.1
Total Gas Quantity	Nm³/h	IS :11255: (Part -3):2008	-	65526.0
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	32.8

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	End of the test report	



### Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Name & Addross Of The Customer	REPORT NO.         UES/TR/22-23/07111           LAB REF NO.         UES/22-23/ST/014928				
То,					
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING 14/02/2023				
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT				
URLA INDUSTRIAL AREA	DATE OF REPORT	20/02/2023			
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:15/02/2023	End:20/02/2023		
	SAMPLE DETAILS				
Monitoring For	Stack Emission Monitoring				
Customer Ref. No. & Date	P.O. NO. 7200004006/U10	P.O. NO. 7200004006/U102, DATED: 16/06/2022			
Sampling Location	CLU Converter & Thermite	CLU Converter & Thermite (Combine Stack)			
Sample Collected By	Laboratory Chemist				
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003				
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 Rubber Bladder: 1 X 1 No.,	Thimble: 1 X 1 No., SO2: 30 ml X 1 No. PVC Bottle, NOx: 25 ml X 1 No. PVC Bott			

Stack details				
Stack Identity				CLU CONVERTER & THERMITE (COMBINE STACK)
Stack Attached To				BAG FILTER
Material of Construction				MILD STEEL PLATE
Height of the stack from ground leve	l (Meter)			35.0 MTR
Stack Diameter				2.295 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel				ELECTRICITY
Total Electrical Load (KW)				650 KW
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	-	85.0
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	-	18.09
Total Gas Quantity	Nm³/h	IS :11255: (Part -3):2008	-	224134.8
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	40	31.7

TEST REPORT

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REVIEWED BY	* OHH * 100 *	AUTHORIZED SIGNATORY

-----End of the test report-----



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Name & Address Of The Customer	REPORT NO.	RT NO. UES/TR/22-23/08155		
To,	LAB REF NO.	UES/22-23/ST/016326 10/03/2023 11/03/2023		
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING			
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT			
URLA INDUSTRIAL AREA	DATE OF REPORT	15/03/2023		
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:11/03/2023	End:15/03/2023	
	SAMPLE DETAILS			
Monitoring For	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/06/2022			
Sampling Location	3.0 & 3.6 MVA Submerged Arc Furnace 'A &B' (Combine Stack)			
Sample Collected By	Laboratory Chemist			
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>X</sub> : 25 ml X 1 No. PVC Bottle, Rubber Bladder: 1 X 1 No.,			

### **TEST REPORT**

Stack details				
Stack Identity				3.0 & 3.6 MVA SUBMERGED ARC FURNACE 'A & B' (COMBINE STACK)
Stack Attached To	BAG FILTER			
Material of Construction	MILD STEEL PLATE			
Height of the stack from ground leve	l (Meter)			30.0 MTR
Stack Diameter				1.4 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel				FLECTNIEITY
Total Electrical Load (KW)				3.0 MVA 8 3.5 MVA
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	I§:11255: (Part -3):2008		73.0
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008		16.1
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008		76805.8
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	38.9

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HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph : 0771 - 4027777 I Email : ultimatenviro@gmail.com

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Name & Address Of The Customer	REPORT NO.	UES/TR/22-23/08156		
То,	LAB REF NO.	UES/22-23/ST/016327		
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING	10/03/2023		
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT	11/03/2023 15/03/2023		
URLA INDUSTRIAL AREA	DATE OF REPORT			
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:11/03/2023	End:15/03/2023	
	SAMPLE DETAILS			
Monitoring For	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/06/2022			
Sampling Location	5.5 MVA Submerged Arc Fi	urnace 'C'		
Sample Collected By	Laboratory Chemist			
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>X</sub> : 21 111 4 1 No. FVC Bottle, Rubber Bladder: 1 X 1 No.,			

### **TEST REPORT**

Stack Identity				5.5 MVA SUBMERGED ARC FURNACE 'C'
Stack Attached To				BAG FILTER
Material of Construction				MILD STEEL PLATE
Height of the stack from ground leve	l (Meter)			35.0 MTR
Stack Diameter				1.4 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel				ELECTRICITY
Total Electrical Load (KW)				5.5 MVA
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	_	88.0
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008	-	7.7
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008	<u> </u>	35206.9
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	41.4

REMARKS: RESULTS ARE AS ABOVE

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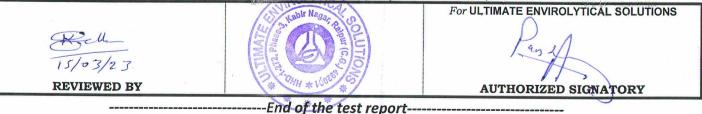
Name & Address Of The Customer	REPORT NO.         UES/TR/22-23/08157           LAB REF NO.         UES/22-23/ST/016328		
То,			
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING	10/03/2023	
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT	11/03/2023	
URLA INDUSTRIAL AREA	DATE OF REPORT	15/03/2023	
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:11/03/2023	End:15/03/2023
	SAMPLE DETAILS		
Monitoring For	Stack Emission Monitoring		
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/06/2022		
Sampling Location	5.5 MVA Submerged Arc Furnace 'D'		
Sample Collected By	Laboratory Chemist		
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003		
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>X</sub> : 25 ml X 1 No. PVC Bottle Rubber Bladder: 1 X 1 No.,		

### **TEST REPORT**

Stack Identity				5.5 MVA SUBMERGED ARC FURNACE 'D'
Stack Attached To			•	BAG FILTER
Material of Construction				MILD STEEL PLATE
Height of the stack from ground leve	l (Meter)		The second s	35.0 MTR
Stack Diameter			6.6 S.S.S.	1.4 MTR
Stack Shape At Top	CIRCULAR			
Type of Fuel				ELECTRICITY
Total Electrical Load (KW)				5.5 MVA
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	-	86.0
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008		7.2
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008		33104.2
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	37.6

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- D Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.
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Name & Address Of The Customer	REPORT NO.	UES/TR/22-23/0815	8
То,	LAB REF NO.	UES/22-23/ST/016329	
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING	10/03/2023	
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT	11/03/2023	
URLA INDUSTRIAL AREA	DATE OF REPORT	15/03/2023	
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:11/03/2023 End:15/	
	SAMPLE DETAILS		
Monitoring For	Stack Emission Monitoring		
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/06/2022		
Sampling Location	6 MVA Submerged Arc Furnace 'E'		
Sample Collected By	Laboratory Chemist		
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003		
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>X</sub> : 25 ml X 1 No. PVC Bottl Rubber Bladder: 1 X 1 No.,		

### **TEST REPORT**

#### Stack details

Stack Identity			4	6 MVA SUBMERGED ARC FURNACE 'E'
Stack Attached To				BAG FILTER
Material of Construction				MILD STEEL PLATE
Height of the stack from ground leve	l (Meter)			40.0 MTR
Stack Diameter			1992	2.0 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel				ELECTRICITY
Total Electrical Load (KW)				6.0 MVA
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	-	89.0
Flue Gas Velocity	M/s	IS :11255 :(Part -3):2008		7.4
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008		68860.7
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	50	35.9

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End of the test report-



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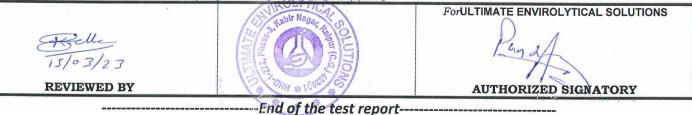
Name & Address Of The Customer	REPORT NO. UES/TR/22-23/08159			
To,	LAB REF NO.	UES/22-23/ST/01633	30	
HIRA POWER AND STEEL LTD.	DATE OF SAMPLING	10/03/2023		
KHASRA NO.: 511/1, 512/2,	DATE OF RECEIPT	11/03/2023		
URLA INDUSTRIAL AREA	DATE OF REPORT	15/03/2023		
RAIPUR (C. G.) 492003	DATE OF ANALYSIS	Start:11/03/2023 End:15/03		
	SAMPLE DETAILS			
Monitoring For	Stack Emission Monitoring			
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/06/2022			
Sampling Location	CLU Converter &Thermite (Combine Stack)			
Sample Collected By	Laboratory Chemist			
Sampling Procedure	IS 11255 Part 1,2:1985 Reaffirmed 2009; Part 3:2008, Part 7:2005 Reaffirmed 2012, IS 5182 (Part 10) :2003			
Sample Quantity/Packing	Thimble: 1 X 1 No., SO <sub>2</sub> : 30 ml X 1 No. PVC Bottle, NO <sub>X</sub> : 25 ml X 1 No. PVC Bottle, Rubber Bladder: 1 X 1 No.,			

### **TEST REPORT**

Stack details				
Stack Identity				CLU CONVERTER & THERMITE (COMBINE STACK)
Stack Attached To				BAG FILTER
Material of Construction				MILD STEEL PLATE
Height of the stack from ground leve	l (Meter)			35.0 MTR
Stack Diameter				2.295 MTR
Stack Shape At Top				CIRCULAR
Type of Fuel			- Contraction	ELECTRICITY
Total Electrical Load (KW)				650 KW
Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS:11255: (Part -3):2008	_	90.0
Flue Gas Velocity	M/s	I§ :11255 :(Part -3):2008	*	17.2
Total Gas Quantity	Nm <sup>3</sup> /h	IS :11255: (Part -3):2008	<b>.</b>	210172.4
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS :11255 :(Part -1):1985, RA 2003	40	37.8

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Name & Address Of The Cu	lame & Address Of The Customer		UES/TR/22-23/09336	
To, HIRA POWER AND STEEL LTD.		LAB REF NO.	UES/22-23/ST/017911 10/03/2023	
		DATE OF SAMPLING		
KHASRA NO.: 511/1, 512/2, URLA INDUSTRIAL AREA	511/1, 512/2,	DATE OF RECEIPT	11/03/2023	
	RIAL AREA	DATE OF REPORT	15/03/2023	
RAIPUR (C. G.) 492003		DATE OF ANALYSIS	Start:11/03/2023	End:15/03/2023
		SAMPLE DETAILS		
Monitoring For	DG Stack Emission Monitorin	g		
Customer Ref. No.	P.O. No. 7200004006/u102, c	lated: 16/06/2022		
Sampling Location	DG Set- 1500 KVA (Power Pla	ant 20 MW)		
Sample Collected By	Laboratory Chemist			
Sampling Procedure	As Per Method Reference.			
Sample Quantity/Packing		I X 1 No. PVC Bottle, NO <sub>x</sub> : 25 ml e & 500ml X 3 NO. PVC Bottle.	X 1 NO. PVC Bottle, Rubb	er Bladder: 1 X 1 No.,

	TEST	REPORT		
Stack details				
Stack Identity	DG Set - 1500 KVA (Power Plant 20 MW)			
Stack Attached to		DC	G-SET- 1500	) KVA
Material of construction	//		MS Plate	2
Stack height above ground level			7.3 mete	r
Stack diameter			280 mm	
Stack shape at top			Circular	
Type of fuel	-		HSD	
Parameter	Unit	Result	Limit	Method Reference
Flue gas Temperature	°C	155	-	IS 11255 (Part 3):2008
Flue gas velocity	m/s	13.56	_	IS 11255 (Part 3):2008
Total gas quantity	Nm³/h	2091.8	- 1	IS 11255 (Part 3):2008
Total Particulate Matter (PM) (Corrected at 15 % O <sub>2</sub> )	mg/Nm <sup>3</sup>	24.8	75	IS 11255 (Part 1):1985, RA 2003
Sulphur Dioxide (SO <sub>2</sub> )	mg/Nm <sup>3</sup>	21.4	_	IS 11255 (Part 2):1985, RA 2003
Oxides of Nitrogen (NO <sub>x</sub> )(Corrected at $15 \% O_2$ ) Dry Basis	ppm	216	360	IS 11255 (Part 7):2005, RA 2012
Non-Methane hydrocarbon (NMHC) (Corrected at 15 % $O_2$ )	mg/Nm <sup>3</sup>	21	100	APHA METHOD 109, P-259
Carbon Monoxide (CO)	mg/Nm <sup>3</sup>	92	150	APHA METHOD 130, P-359

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		AUTHORIZED SIGNATORY
REVIEWED BY	# CHH * 100 #	AUTHORIZED SIGNATORY
	End of the test report	

#### Annexure-IX

Format No. : UES/FORM/09



HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph : 0771 - 4027777 I Email : ultimatenviro@gmail.com

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Name & Address of The Custom			UES/TR/22-23/03782		
To, HIRA POWER AND STEEL LTD. KHASRA NO.: 511/1, 512/2,		Lab Ref No.	UES/22-23/AAQM/09326-09329 11/10/2022 to 12/10/2022		
		Date of Sampling			
		Date of Receipt	13/10/2022	13/10/2022	
URLA INDUSTRIA	L AREA	Date of Report	18/10/2022		
RAIPUR (C. G.) 492003		Date of Analysis	Start:13/10/2022	End:18/10/2022	
	SAMPI	E DETAILS	еби <i>на стра</i> ла во открыти на странити от странити на странити на странити на странити на странити на странити на С	OPERATE AND A CONTRACT OF A	
Monitoring For	Ambient Air Quality Monitoring	Ambient Air Quality Monitoring			
Sampling Location	<ol> <li>Near CHP Area</li> <li>Beside Silo</li> <li>Solar Panel Area</li> <li>Near Main Gate</li> </ol>	2. Beside Silo 3. Solar Panel Area			
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16	/06/2022			
Duration Of Sampling	As per CPCB norms				
Sample Collected By	Laboratory Chemist				
Sampling Procedure	As Per Method Reference			-	
Sample Quantity/Packing	Filter Paper (PM <sub>10</sub> ): 1X1 No., Filter Pape SO <sub>2</sub> : 30mlX1 No. PVC Bottle, NO <sub>2</sub> : 30ml				

Test Method for Ambient Air Quality Monitoring			
Parameter Method Reference			
Particulate Matter size less than 10 microns $(PM_{10})$	IS:5182:(Part-23):2006 & CPCB Guidelines VolI		
Particulate Matter size less than 2.5 microns $(PM_{2.5})$	IS:5182:(Part-24):2019 & CPCB Guidelines VolI		
Sulphur Dioxide (SO <sub>2</sub> )	IS:5182: (Part-2):2001, RA 2006 & CPCB Guidelines VolI		
Nitrogen Dioxide (NO2)	IS:5182: (Part-6):2006 & CPCB Guidelines VolI		

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Parameter Unit	NAAQM		Results			
	Standard	Near CHP Area	Beside Silo	Solar Panel Area	Near Main Gate	
PM <sub>10</sub>	µg/m <sup>3</sup>	100	68.2	62.6	54.8	60.2
PM <sub>2.5</sub>	µg/m <sup>3</sup>	60	26.8	20.8	22.6	24.6
SO <sub>2</sub>	µg/m <sup>3</sup>	80	13.2	8.6	9.4	10.8
NO <sub>2</sub>	µg/m <sup>3</sup>	80	26.8	20.6	22.8	28 <mark>.</mark> 4
СО	mg/m <sup>3</sup>	4.0	0.42	0.24	0.38	0.62

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-----End of the test report-----



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Name & Address of The Customer To, HIRA POWER AND STEEL LTD. KHASRA NO.: 511/1, 512/2, URLA INDUSTRIAL AREA RAIPUR (C. G.) 492003		Report No.	UES/TR/22-23/04501	
		Lab Ref No.	UES/22-23/AAQM/1	10338-10341
		Date of Sampling	22/11/2022 to 23/11/2022 23/11/2022 28/11/2022	
		Date of Receipt Date of Report		
			SAMPLE	DETAILS
Monitoring For	Ambient Air Quality Monitoring	a na sana na manana na kaonina manana amin'ny fanina amin'ny fanina amin'ny fanina amin'ny fanina amin'ny fanin		
Sampling Location	Near CHP Area     Beside Silo     Solar Panel Area     Near Main Gate			
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/06/2022			
Duration Of Sampling	As per CPCB norms			
Sample Collected By	Laboratory Chemist			
Sampling Procedure	As Per Method Reference			

 Sample Quantity/Packing
 Filter Paper (PM10): 1X1 No., Filter Paper (PM25): 1X1 No.

 SO2: 30mlX1 No. PVC Bottle, NO2: 30mlX1 NO. PVC Bottle,
 SO2: 30mlX1 No. PVC Bottle,

Test Method for Ambient Air Quality Monitoring			
Parameter Method Reference			
Particulate Matter size less than 10 microns ( $PM_{10}$ )	IS:5182:(Part-23):2006 & CPCB Guidelines VolI		
Particulate Matter size less than 2.5 microns $(PM_{2.5})$	IS:5182:(Part-24):2019 & CPCB Guidelines VolI		
Sulphur Dioxide (SO <sub>2</sub> )	IS:5182: (Part-2):2001, RA 2006 & CPCB Guidelines VolI		
Nitrogen Dioxide (NO <sub>2</sub> )	IS:5182: (Part-6):2006 & CPCB Guidelines VolI		

TEST REPORT						
		NAAQM		Re	sults	
Parameter Unit		Standard	Near CHP Area	Beside Silo	Solar Panel Area	Near Main Gate
PM <sub>10</sub>	µg/m³	100	67.1	63.4	56.8	61.3
PM <sub>2.5</sub>	µg/m³	60	28.2	21.4	23.8	23.7
SO <sub>2</sub>	µg/m <sup>3</sup>	80	8.4	8.1	9.8	11.2
NO <sub>2</sub>	µg/m³	80	24.2	19.5	21.9	22.4
CO	mg/m <sup>3</sup>	4.0	0.48	0.32	0.39	0.58

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> This is for information as the party has asked for popy (s) only.

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Name & Address of The Customer To, HIRA POWER AND STEEL LTD. KHASRA NO.: 511/1, 512/2, URLA INDUSTRIAL AREA RAIPUR (C. G.) 492003		Report No.	UES/TR/22-23/0540	)5
		Lab Ref No.	UES/22-23/AAQM/	012118-012 <mark>1</mark> 21
		Date of Sampling	19/12/2022 to 20/1	2/2022
		Date of Receipt Date of Report	20/12/2022 24/12/2022	
			SAMPLI	E DETAILS
Monitoring For	Ambient Air Quality Monitoring			
Sampling Location	<ol> <li>Near CHP Area</li> <li>Beside Silo</li> <li>Solar Panel Area</li> <li>Near Main Gate</li> </ol>			
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/	06/2022		
Duration Of Sampling	As per CPCB norms			
Sample Collected By	Laboratory Chemist			
Sampling Procedure	As Per Method Reference			
Sample Quantity/Packing	Filter Paper (PM <sub>10</sub> ): 1X1 No., Filter Paper (PM <sub>2.5</sub> ): 1X1 No. SO <sub>2</sub> : 30mlX1 No. PVC Bottle, NO <sub>2</sub> : 30mlX1 NO. PVC Bottle,			

Test Method for Ambient Air Quality Monitoring				
Parameter	Method Reference			
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS:5182:(Part-23):2006 &CPCB Guidelines VolI			
Particulate Matter size less than 2.5 microns $(PM_{2.5})$	IS:5182:(Part-24):2019 &CPCB Guidelines VolI			
Sulphur Dioxide (SO <sub>2</sub> )	IS:5182:(Part-2):2001, RA 2006 &CPCB Guidelines VolI			
Nitrogen Dioxide (NO <sub>2</sub> )	IS:5182:(Part-6):2006 & CPCB Guidelines VolI			

TEST REPORT						
		NAAQM		Re	sults	
Parameter	Unit	Standard	Near CHP Area	Beside Silo	Solar Panel Area	Near Main Gate
PM <sub>10</sub>	µg/m <sup>3</sup>	100	66.4	60.2	56.2	58.6
PM <sub>2.5</sub>	$\mu g/m^3$	60	32.4	31.6	29.2	30.3
SO <sub>2</sub>	µg/m <sup>3</sup>	80	14.2	11.8	11.4	12.4
NO <sub>2</sub>	µg/m <sup>3</sup>	80	24.6	22.8	23.6	26.8
СО	mg/m <sup>3</sup>	4.0	0.40	0.29	0.32	0.56

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Name & Address of The Customer To, HIRA POWER AND STEEL LTD. KHASRA NO.: 511/1, 512/2, URLA INDUSTRIAL AREA RAIPUR (C. G.) 492003		Report No.	UES/TR/22-23/0672	23
		Lab Ref No.	UES/22-23/AAQM/014124-014127	
		Date of Sampling	12/01/2023 to 13/0	1/2023
		Date of Receipt	13/01/2023 17/01/2023	
		Date of Report		
		Date of Analysis	Start: 13/01/2023	End: 17/01/2023
	SAMPI	E DETAILS		
Monitoring For	Ambient Air Quality Monitoring			
Sampling Location	Near CHP Area     Beside Silo     Solar Panel Area     Near Main Gate			
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/06/2022			
Duration Of Sampling	As per CPCB norms	alle -		
Sample Collected By	Laboratory Chemist			
Sampling Procedure	As Per Method Reference			
Sample Quantity/Packing	Filter Paper (PM <sub>10</sub> ): 1X1 No., Filter Paper (PM <sub>25</sub> ): 1X1 No. SO <sub>2</sub> : 30mlX1 No. PVC Bottle, NO <sub>2</sub> : 30mlX1 NO. PVC Bottle,			

Test Method for Ambient Air Quality Monitoring				
Parameter	Method Reference			
Particulate Matter size less than 10 microns $(PM_{10})$	IS:5182: (Part-23):2006 &CPCB Guidelines VolI			
Particulate Matter size less than 2.5 microns $(PM_{2.5})$	IS:5182:(Part-24):2019 &CPCB Guidelines VolI			
Sulphur Dioxide (SO <sub>2</sub> )	IS:5182:(Part-2):2001, RA 2006 &CPCB Guidelines VolI			
Nitrogen Dioxide (NO2)	IS:5182:(Part-6):2006 & CPCB Guidelines VolI			

TEST REPORT						
		NAAQM		Re	sults	
Parameter	Unit	Standard	Near CHP Area	Beside Silo	Solar Panel Area	Near Main Gate
PM10	µg/m³	100	66.8	61.2	57.4	58.6
PM <sub>2.5</sub>	µg/m³	60	33.0	32.4	29.9	31.2
<b>SO</b> <sub>2</sub>	µg/m <sup>3</sup>	80	15.0	12.6	12.0	13.4
NO <sub>2</sub>	µg/m <sup>3</sup>	80	25.2	23.5	24.2	27.3
СО	mg/m <sup>3</sup>	4.0	0.43	0.33	0.38	0.65

#### **REMARKS: RESULTS ARE AS ABOVE**

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Subhajeet

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Name & Address of The Custom	ter	Report No.	UES/TR/22-23/07106	
To, HIRA POWER AND STEEL LTD. KHASRA NO.: 511/1, 512/2, URLA INDUSTRIAL AREA RAIPUR (C. G.) 492003		Lab Ref No.	UES/22-23/AAQM/014920-014923	
		Date of Sampling	14/02/2023 to 15/0	2/2023
		Date of Receipt	15/02/2023	
		Date of Report	20/02/2023	
		Date of Analysis	Start: 15/02/2023	End: 20/02/2023
	SAMPLE	DETAILS		
Monitoring For	Ambient Air Quality Monitoring			
Sampling Location	<ol> <li>Near CHP Area</li> <li>Beside Silo</li> <li>Solar Panel Area</li> <li>Near Main Gate</li> </ol>			
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/06,	/2022		
Duration Of Sampling	As per CPCB norms			
Sample Collected By	Laboratory Chemist			
Sampling Procedure	As Per Method Reference			
Sample Quantity/Packing	Filter Paper (PM <sub>10</sub> ): 1X1 No., Filter Paper (P SO <sub>2</sub> : 30mlX1 No. PVC Bottle, NO <sub>2</sub> : 30mlX1 N			

Test Method for Ambient Air Quality Monitoring				
Parameter Method Reference				
Particulate Matter size less than 10 microns $(PM_{10})$	IS:5182:(Part-23):2006 &CPCB Guidelines VolI			
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	IS:5182: (Part-24):2019 & CPCB Guidelines VolI			
Sulphur Dioxide (SO <sub>2</sub> )	IS:5182:(Part-2):2001, RA 2006 &CPCB Guidelines VolI			
Nitrogen Dioxide (NO2)	IS:5182:(Part-6):2006 & CPCB Guidelines VolI			

TEST REPORT						
		NAAQM		Re	sults	
Parameter	Unit	Standard	Near CHP Area	Beside Silo	Solar Panel Area	Near Main Gate
PM10	µg/m³	100	67.4	62.6	58.2	59.4
PM2.5	µg/m³	60	33.8	31.9	30.0	32.1
SO <sub>2</sub>	µg/m³	80	16.4	13.1	12.8	14.5
NO <sub>2</sub>	µg/m³	80	26.0	24.4	25.6	27.7
со	mg/m <sup>3</sup>	4.0	0.46	0.38	0.41	0.68

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Name & Address of The Custom	er	Report No.	UES/TR/22-23/08154	
To, HIRA POWER AND STEEL LTD. KHASRA NO.: 511/1, 512/2, URLA INDUSTRIAL AREA		Lab Ref No.	UES/22-23/AAQM/0	)16322-016325
		Date of Sampling	10/03/2023 to 11/0	3/2023
		Date of Receipt	11/03/2023 15/03/2023	
		Date of Report		
<b>RAIPUR (C. G.)</b> 49	2003	Date of Analysis	Start: 11/03/2023	End: 15/03/2023
	SAMPLE	DETAILS		
Monitoring For	Ambient Air Quality Monitoring			
Sampling Location	<ol> <li>Near CHP Area</li> <li>Beside Silo</li> <li>Solar Panel Area</li> <li>Near Main Gate</li> </ol>			
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/06	5/2022		-
Duration Of Sampling	As per CPCB norms	Addie 1 Marca and		
Sample Collected By	Laboratory Chemist			
Sampling Procedure	As Per Method Reference			
Sample Quantity/Packing	Filter Paper (PM <sub>10</sub> ): 1X1 No., Filter Paper (F SO <sub>2</sub> : 30mlX1 No. PVC Bottle, NO <sub>2</sub> : 30mlX1			

Test Method for Ambient Air Quality Monitoring					
Parameter Method Reference					
Particulate Matter size less than 10 microns $(PM_{10})$	IS:5182:(Part-23):2006 &CPCB Guidelines VolI				
Particulate Matter size less than 2.5 microns $(PM_{2.5})$	IS:5182:(Part-24):2019 &CPCB Guidelines VolI				
Sulphur Dioxide (SO <sub>2</sub> )	IS:5182:(Part-2):2001, RA 2006 &CPCB Guidelines VolI				
Nitrogen Dioxide (NO <sub>2</sub> )	IS:5182:(Part-6):2006 & CPCB Guidelines VolI				

TEST REPORT						
		NAAQM		Re	sults	
Parameter	Unit	Standard	Near CHP Area	Beside Silo	Solar Panel Area	Near Main Gate
PM <sub>10</sub>	µg/m³	100	67.8	63.2	58.6	60.4
PM <sub>2.5</sub>	µg/m <sup>3</sup>	. 60	32.7	30.4	29.7	32.6
SO <sub>2</sub>	µg/m <sup>3</sup>	80	16.6	13.8	12.9	14.7
NO <sub>2</sub>	µg/m <sup>3</sup>	80	26.4	24.9	25.8	28.0
СО	mg/m <sup>3</sup>	4.0	0.48	0.39	0.45	0.72

### **REMARKS: RESULTS ARE AS ABOVE**

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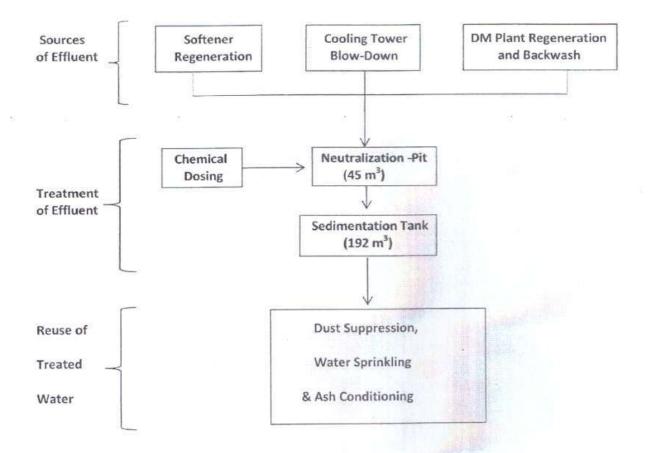
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## EFFLUENT TREATMENT SCHEME

No waste water is discharged outside factory premises. Waste water generated from Cooling Tower Blow-down, Softener Regeneration and Backwash & DM Water Regeneration and Backwash is taken to Neutralization-Pit (45 m<sup>3</sup>) where sample is taken and after Analysis chemical dosing is done along with air scouring and then after chemical dosing the water is sent to Sedimentation tank (192 m<sup>3</sup>) for settling of suspended particles, After sedimentation the treated water is used for Dust suppression, Water sprinkling on the road and Ash conditioning. Hence, Zero liquid discharge condition is maintained.







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Name & Address Of The Cust. To,	omer	Report No	UES/TR/22-23/03781	
		Lab. Ref. No.	UES/22-23/W/09324	-09325
HIRA POWER AND STEEL LTD. KHASRA NO.: 511/1, 512/2, URLA INDUSTRIAL AREA RAIPUR (C. G.) 492003		Date of Sampling	11/10/2022	
		Date of Receipt	13/10/2022       18/10/2022       Start:13/10/2022       End:18/10/2022	
		Date of Report		
		Date of Analysis		
		SAMPLE DETAILS		
Customer Sample ID	Siltration Tank Water	Customer Ref. No. & Date	P.O. NO. 7200004006/U	102, DATED: 16/06/2022
Sample Type	1. Inlet Water 2.Outlet Water	Sample Condition At Receipt	Ok	
Packing of Sample	Jerry Cane (3 ltr. *2) Glass bottle (1 ltr. *2)	Sample Collected By	Laboratory Chemist	9999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -
Other Details	Sealed	Quantity Received	Approx. 4Ltr. each	

	TEST REPORT					
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	LIMITS AS PER CONSENT	Inlet Water	Outlet Water
1	pH Value at 25.2°C	_	IS:3025:(Part- 11): 1983, RA 2012	5.5 To 9.0	8.47	7.72
2	Total Suspended Solid	mg/L	IS:3025:(Part- 17): 1984, RA 2012	100	60	22
3	Chemical Oxygen Demand	mg/L	IS:3025:(Part- 58):2006, RA 2012	250	52	20
4	Bio-chemical Oxygen Demand at 27°C for three day	mg/L	IS:3025:(Part- 44):1993 RA 2014	30	13.6	5.2
5	Oil & Grease	mg/L	IS:3025:(Part- 39):1986	10	0.8	N.D.

Note:mg/lit.: milligram per liter. N.D.: Not Detected.

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Name & Address Of The Cust. To,	omer	Report No	UES/TR/22-23/04506	
		Lab. Ref. No.	UES/22-23/W/10346	-10347
HIRA POWER AN		Date of Sampling	22/11/2022	
KHASRA NO.: 51	1/1, 512/2,	Date of Receipt	23/11/2022	
URLA INDUSTRIAL AREA RAIPUR (C. G.) 492003		Date of Report	28/11/2022	
		Date of Analysis	Start: 23/11/2022	End: 28/11/2022
		SAMPLE DETAILS		an a
Customer Sample ID	Siltration Tank Water	Customer Ref. No. & Date	P.O. NO. 7200004006/U1	02, DATED: 16/06/2022
Sample Type	1. Inlet Water 2.Outlet Water	Sample Condition At Receipt	Ok	
Packing of Sample	Jerry Cane (3 ltr. *2) Glass bottle (1 ltr. *2)	Sample Collected By	Laboratory Chemist	
Other Details	Sealed	Quantity Received	Approx. 4Ltr. each	

TEST REPORT							
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	LIMITS AS PER CONSENT	Inlet Water	Outlet Water	
1	pH Value at 25.2°C	_	IS:3025:(Part- 11): 1983, RA 2012	5.5 To 9.0	7.34	7.42	
2	Total Suspended Solid	mg/L	IS:3025:(Part- 17): 1984, RA 2012	100	66	24	
3	Chemical Oxygen Demand	mg/L	IS:3025:(Part- 58):2006, RA 2012	250	110	34	
4	Bio-chemical Oxygen Demand at 27°C for three day	mg/L	IS:3025:(Part- 44):1993 RA 2014	30	29.2	6.2	
5	Oil & Grease	mg/L	IS:3025:(Part- 39):1986	10	0.6	N.D.	

Note:mg/lit.: milligram per liter. N.D.: Not Detected.

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Name & Address Of The Custo To, HIRA POWER AN KHASRA NO.: 51 URLA INDUSTRI	ID STEEL LTD. 1/1, 512/2,	Report No Lab. Ref. No. Date of Sampling Date of Receipt Date of Report	UES/TR/22-23/05412 UES/22-23/W/012128-012129 19/12/2022 20/12/2022 24/12/2022		
RAIPUR (C. G.) 4		Date of Analysis	Start:20/12/2022	End:24/12/2022	
Customer Sample ID	Siltration Tank Water	Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/06/202		
Sample Type	1. Inlet Water     Sample Condition       2.Outlet Water     Receipt		Ok		
Packing of Sample Jerry Cane (3 ltr. *2) Glass bottle (1 ltr. *2)		Sample Collected By	Laboratory Chemist		
Other Details Sealed		Quantity Received	Approx. 4Ltr. each		

TEST REPORT						
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	LIMITS AS PER CONSENT	Inlet Water	Outlet Water
1	pH Value at 25.2°C	-	IS:302 <mark>5:(Part-</mark> 11): <mark>1983, R</mark> A 2012	5.5 To 9.0	8.14	7.32
2	Total Suspended Solid	mg/L	IS:3025:(Part- 17): 1984, RA 2012	100	64	26
3	Chemical Oxygen Demand	mg/L	IS:3025:(Part- 58):2006, RA 2012	250	58	24
4	Bio-chemical Oxygen Demand at 27°C for three day	mg/L	IS:3025:(Part- 44):1993 RA 2014	30	14.2	5.6
5	Oil & Grease	mg/L	IS:3025:(Part- 39):1986	10	0.9	N.D.
	Note:mg/lit.: milligram per liter. N.I	D.: Not Detec	ted.			. <u>i</u>

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	End of the test report	



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Name & Address Of The Cust	omer	Report No	UES/TR/22-23/06729	UES/TR/22-23/06729		
То,		Lab. Ref. No.	UES/22-23/W/014133-014134			
HIRA POWER AN		Date of Sampling	12/01/2023 13/01/2023 17/01/2023			
KHASRA NO.: 51	1/1, 512/2,	Date of Receipt				
URLA INDUSTRI	AL AREA	Date of Report				
RAIPUR (C. G.) 4	92003	Date of Analysis	Date of Analysis Start: 13/01/2023 En			
		SAMPLE DETAILS				
Customer Sample ID	Siltration Tank Water	Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/06/2022			
Sample Type	1. Inlet Water 2.Outlet Water	Sample Condition At Receipt	Ok			
Packing of Sample	Jerry Cane (3 ltr. *2) Glass bottle (1 ltr. *2)	Sample Collected By	Laboratory Chemist			
Other Details	Sealed	Quantity Received	Approx. 4Ltr. each			

	TEST REPORT						
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	LIMITS AS PER CONSENT	Inlet Water	Outlet Water	
1	pH Value at 25.2°C	-	IS:3025:(Part- 11): 1983, RA 2012	5.5 To 9.0	8.47	7.38	
2	Total Suspended Solid	mg/L	IS:3025:(Part- 17): 1984, RA 2012	100	68	28	
3	Chemical Oxygen Demand	mg/L	IS:3025:(Part- 58):2006, RA 2012	250	62	26	
4	Bio-chemical Oxygen Demand at 27°C for three day	mg/L	IS:3025:(Part- 44):1993 RA 2014	30	16.71	7.42	
5	Oil & Grease	mg/L	IS:3025:(Part- 39):1986	10	1.0	N.D.	

Note:mg/lit.: milligram per liter. N.D.: Not Detected.

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Roll 17/01/23 **REVIEWED BY** 



For ULTIMATE ENVIROLYTICAL SOLUTIONS

Subhajeet

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Name & Address Of The Cust	omer	Report No	UES/TR/22-23/07112 UES/22-23/W/014929-014930 14/02/2023 15/02/2023		
то,		Lab. Ref. No.			
HIRA POWER AN		Date of Sampling			
KHASRA NO.: 51		Date of Receipt			
URLA INDUSTRI	AL AREA	Date of Report	20/02/2023		
RAIPUR (C. G.) 4	92003	Date of Analysis	Start: 15/02/2023 End: 20/02/		
		SAMPLE DETAILS			
Customer Sample ID	Siltration Tank Water	Customer Ref. No. & Date	P.O. NO. 7200004006/U1	02, DATED: 16/06/2022	
Sample Type	Sample Type 1. Inlet Water Sa 2.Outlet Water Re		Ok		
Packing of Sample	Jerry Cane (3 ltr. *2) Glass bottle (1 ltr. *2)	Sample Collected By	Laboratory Chemist		
Other Details	Sealed	Quantity Received	Approx. 4Ltr. each		

			TEST REPOR	T		
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	LIMITS AS PER CONSENT	Inlet Water	Outlet Water
1	pH Value at 25.2°C	_	IS:3025:(Part- 11): 1983, RA 2012	5.5 To 9.0	8.50	7.44
2	Total Suspended Solid	mg/L	IS:3025:(Part- 17): 1984, RA 2012	100	70.4	30.8
3	Chemical Oxygen Demand	mg/L	IS:3025:(Part- 58):2006, RA 2012	250	64.6	28.2
4	Bio-chemical Oxygen Demand at 27°C for three day	mg/L	IS:3025:(Part- 44):1993 RA 2014	30	18.8	8.24
5	Oil & Grease	mg/L	IS:3025:(Part- 39):1986	10	1.1	N.D.

Note:mg/lit.: milligram per liter. N.D.: Not Detected.

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- This is for information as the party has asked for above test(s) only.

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REVIEWED BY	* ONH * 1000 *	AUTHORIZED SIGNATORY

-----End of the test report-----



Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Name & Address Of The Customer To, HIRA POWER AND STEEL LTD. KHASRA NO.: 511/1, 512/2, URLA INDUSTRIAL AREA RAIPUR (C. G.) 492003		Report No Lab. Ref. No. Date of Sampling Date of Receipt Date of Report	UES/TR/22-23/08160           UES/22-23/W/016331-16332           10/03/2023           11/03/2023           15/03/2023	
		Date of Analysis           SAMPLE         DETAILS	Start: 11/03/2023	End: 15/03/2023
Customer Sample ID	Siltration Tank Water	Customer Ref. No. & Date	P.O. NO. 7200004006/U1	02, DATED: 16/06/2022
Sample Type	1. Inlet Water 2.Outlet Water	Sample Condition At Receipt	Ok	
Packing of Sample	Jerry Cane (3 ltr. *2) Glass bottle (1 ltr. *2)	Sample Collected By	Laboratory Chemist	
Other Details	Sealed	Quantity Received	Approx. 4Ltr. each	

TEST REPORT						
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	LIMITS AS PER CONSENT	INLET WATER	OUTLET WATER
1	pH Value at 25.2°C		IS:302 <mark>5:(Part-</mark> 11): 1983, RA 2012	5.5 To 9.0	8.48	8.12
2	Total Suspended Solid	mg/L	IS:3025:(Part- 17): 1984, RA 2012	100	8.7	3.2
3	Chemical Oxygen Demand	mg/L	IS:3025:(Part- 58):2006, RA 2012	250	44.0	8.0
4	Bio-chemical Oxygen Demand at 27°C for three day	mg/L	IS:3025:(Part- 44):1993 RA 2014	30	18.8	3.1
5	Oil & Grease	mg/L	IS:3025:(Part- 39):1986	10	Absent	Absent
	Note:mg/lit.: milligram per liter. N.I	D.: Not Detect	ed.			

**REMARKS: RESULTS ARE AS ABOVE** 

Terms & conditions

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Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked to above test(s) only. A A

For ULTIMATE ENVIROLYTICAL SOLUTIONS ir M: Rell. 15/03/23 **REVIEWED BY** AUTHORIZED SIGNATORY

-End of the test report---

### Annexure -XII

Format No. : UES/FORM/09



HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph : 0771 - 4027777 I Email : ultimatenviro@gmail.com

Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

Name & Address of The Customer To, HIRA POWER AND ST KHASRA NO.: 511/1, S URLA INDUSTRIAL AI RAIPUR (C. G.) 49200	512/2, REA	REPORT NO. LAB REF NO. DATE OF REPORT DATE OF SAMPLING	UES/TR/22-23/03789 UES/22-23/N/09336-09339 18/10/2022 11/10/2022 to 12/10/2022
	SAMPLE	DETAILS	
Monitoring For	NOISE LEVEL MONITORING		
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DA	TED: 16/06/2022	
Sampling Location	<ol> <li>Near CHP Area</li> <li>Beside Silo</li> <li>Solar Panel Area</li> <li>Near Main Gate</li> </ol>		
Sample Collected By	Laboratory Chemist		
Sampling Procedure	Manufacturer's Instruction		

TEST REPORT						
LOCATION	RESULT		LIMIT (INDUSTRIAL ZONE			
	DAY	NIGHT	DAY	NIGHT		
Near CHP Area	dB(A)	64.6	52.4	75 dB(A)	70 dB(A)	
Beside Silo	dB(A)	60.2	50.8			
Solar Panel Area	dB(A)	62.5	54.2			
Near Main Gate	dB(A)	56.8	48.6			

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18/10/72		Shubharteet
REVIEWED BY	To an a star	AUTHORIZED SIGNATORY
	End of the test report	AUTHORIZED SIGNATORY

-----End of the test report-----

AN ISO : 9001:2015 / ISO: 14001:2015 / ISO 45001:2018 CERTIFIED LABORATORY



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Name & Address of The Customer To, HIRA POWER AND STEEL LTD. KHASRA NO.: 511/1, 512/2, URLA INDUSTRIAL AREA RAIPUR (C. G.) 492003		REPORT NO. LAB REF NO. DATE OF REPORT DATE OF SAMPLING	UES/TR/22-23/04507         UES/22-23/N/10348-10351         28/11/2022         22/11/2022 to 23/11/2022		
	SAMPLE	DETAILS			
Monitoring For	NOISE LEVEL MONITORING	NOISE LEVEL MONITORING			
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, D/	ATED: 16/06/2022			
Sampling Location	<ol> <li>Near CHP Area</li> <li>Beside Silo</li> <li>Solar Panel Area</li> <li>Near Main Gate</li> </ol>				
Sample Collected By	Laboratory Chemist				
Sampling Procedure	Manufacturer's Instruction				

TEST REPORT						
LOCATION	UNIT	RESULT		LIMIT (INDUSTRIAL ZONE)		
	UNIT	DAY	NIGHT	DAY	NIGHT	
Near CHP Area	dB(A)	62.2	53.4	75 dB(A)	70 dB(A)	
Beside Silo	dB(A)	63.0	51.2			
Solar Panel Area	dB(A)	61.8	52.5			
Near Main Gate	dB(A)	62.9	50.4			

### **REMARKS: RESULTS ARE AS ABOVE**

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- This is for information as the party has asked in appreciate only.



-----End of the test report-----



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Name & Address of The Customer To, HIRA POWER AND STEEL LTD. KHASRA NO.: 511/1, 512/2, URLA INDUSTRIAL AREA RAIPUR (C. G.) 492003		REPORT NO. LAB REF NO. DATE OF REPORT DATE OF SAMPLING	UES/TR/22-23/05413         UES/22-23/N/012130-012133         24/12/2022         19/12/2022 to 20/12/2022			
	SAMPLE	DETAILS				
Monitoring For	NOISE LEVEL MONITORING	NOISE LEVEL MONITORING				
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, D/	ATED: 16/06/2022				
Sampling Location	1.Near CHP Area2.Beside Silo3.Solar Panel Area4.Near Main Gate					
Sample Collected By	Laboratory Chemist					
Sampling Procedure	Manufacturer's Instruction					

TEST REPORT						
LOCATION	UNIT	RES	ULT	LIMIT (INDU	STRIAL ZONE)	
LOCATION	UNIT	DAY NO	NIGHT	DAY	NIGHT	
Near CHP Area	dB(A)	65.2	53.7			
Beside Silo	dB(A)	61.5	51.3	75 dB(A)	70 dB(A)	
Solar Panel Area	dB(A)	63.8	55.2			
Near Main Gate	dB(A)	57.0	49.6			

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24/12/2022		Tto		
REVIEWED BY	# 244 * 10000 G	AUTHORIZED SIGNATORY		
End of the test report				

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Name & Address of The Customor To, HIRA POWER AND ST KHASRA NO.: 511/1, 5		REPORT NO. LAB REF NO. DATE OF REPORT	UES/TR/22-23/06730 UES/22-23/N/014135-014138 17/01/2023		
URLA INDUSTRIAL AI RAIPUR (C. G.) 49200	3	DATE OF SAMPLING	12/01/2023 to 13/01/2023		
Monitoring For	NOISE LEVEL MONITORING	NOISE LEVEL MONITORING			
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, D	P.O. NO. 7200004006/U102, DATED: 16/06/2022			
Sampling Location	1.       Near CHP Area         2.       Beside Silo         3.       Solar Panel Area         4.       Near Main Gate				
Sample Collected By	Laboratory Chemist	Laboratory Chemist			
Sampling Procedure	Manufacturer's Instruction	Manufacturer's Instruction			

TEST REPORT					
LOCATION	UNIT	RESULT		LIMIT (INDUSTRIAL ZONE)	
LOCATION	UNIT	DAY	NIGHT	DAY	NIGHT
Near CHP Area	dB(A)	66.4	54.1	75 dB(A)	70 dB(A)
Beside Silo	dB(A)	62.7	51.9		
Solar Panel Area	dB(A)	64.0	55.7		
Near Main Gate	dB(A)	57.5	50.2		

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Name & Address of The Customer To, HIRA POWER AND STEEL LTD. KHASRA NO.: 511/1, 512/2, URLA INDUSTRIAL AREA RAIPUR (C. G.) 492003		REPORT NO. LAB REF NO. DATE OF REPORT DATE OF SAMPLING	UES/TR/22-23/07113 UES/22-23/N/014931-014934 18/02/2023 14/02/2023 to 15/02/2023
	SAMPLE	DETAILS	
Monitoring For	NOISE LEVEL MONITORING		
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/06/2022		
Sampling Location	<ol> <li>Near CHP Area</li> <li>Beside Silo</li> <li>Solar Panel Area</li> <li>Near Main Gate</li> </ol>		
Sample Collected By	Laboratory Chemist		
Sampling Procedure	Manufacturer's Instruction		

TEST REPORT					
LOCATION	INIT	RESULT		LIMIT (INDUSTRIAL ZONE)	
LOCATION	UNIT	DAY	NIGHT	DAY	NIGHT
Near CHP Area	dB(A)	66.7	54.8		70 dB(A)
Beside Silo	dB(A)	63.0	52.2	75 dB(A)	
Solar Panel Area	dB(A)	64.5	56.5		
Near Main Gate	dB(A)	58.1	50.8		

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Name & Address of The Customer To, HIRA POWER AND STEEL LTD. KHASRA NO.: 511/1, 512/2, URLA INDUSTRIAL AREA RAIPUR (C. G.) 492003		REPORT NO. LAB REF NO. DATE OF REPORT DATE OF SAMPLING	UES/TR/22-23/08161         UES/22-23/N/016333-016336         15/03/2023         10/03/2023 to 11/03/2023
	SAMPLE	DETAILS	
Monitoring For	NOISE LEVEL MONITORING		
Customer Ref. No. & Date	P.O. NO. 7200004006/U102, DATED: 16/06/2022		
Sampling Location	<ol> <li>Near CHP Area</li> <li>Beside Silo</li> <li>Solar Panel Area</li> <li>Near Main Gate</li> </ol>		
Sample Collected By	Laboratory Chemist		
Sampling Procedure	Manufacturer's Instruction		

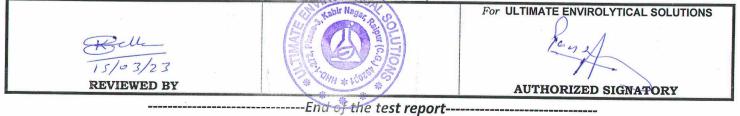
	TEST R	EPORT			
LOCATION	UNIT	RESULT		LIMIT (INDUSTRIAL ZONE)	
		DAY	NIGHT	DAY	NIGHT
Near CHP Area	dB(A)	66.9	55.0		
Beside Silo	dB(A)	63.4	52.8	75 dB(A) 70 dB(	70 dB(A)
Solar Panel Area	dB(A)	65.0	55.5		
Near Main Gate	dB(A)	58.6	49.6		

### **REMARKS: RESULTS ARE AS ABOVE**

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Annexure-XIII



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OPP. TAHSIL OFFICE, BEHIND BAJRANG MANDIR

G.E. ROAD KATCHERY CHOWK, RAIPUR

TEL:0771-2234270 M:7470889922

### X-ray & Advanced Diagnostic Centre

(AN ISO Certified lab - certificate No. UK-RXR-0201)

E-Mail : ruprelahealthcare7@gmail.com

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FORM 21 (Annexure)
[prescribed under Rule(19)]
Health Register
of persons employed in occupation declared to be dangerous operation under section 87)

PRE-EMPLOYEMENT & PERIODIC MEDICAL EXAMINATION

### **Registration No: 060**

Date : 22-02-2023

Name : ANIL KUMAR DWIVEDI	Age (Years): 32	Gender : Male
Nature of Employment :	Employee No.: 1790	
Date of Joining :	Last Medical Date :	
Department : MECHANICAL	Designation : EOT CRANE O	PERATOR
No. of Working Year : Previous Working :	Mobile No.:	
ESIC Number :	Aadhar No.:	

#### 1. GENERAL EXAMINATION

HEIGHT : 176 cm	WEIGHT : 80 Kg	BMI : 25.83
CHEST INSPIRATION : 97 cm	EXPIRATION : 92 cm	BUILT : Average
THROAT : Normal	THYROID : Note Palpabel	LYMPH NODES : Note Palpabel
TOUNGE : Normal	TEETH : Normal	GUMS : Normal
TONSILS : Normal	ADDITIONAL FINDING IF ANY : Absent	

#### 2. CARDIO-VASCULAR SYSTEM

2. CARDIO-VASCOLAR STSTEM	
PULSE : 86/min Regular	PERIPHERAL PULSE : Felt
BP : 125/70 mmHg	MURMUR IF ANY : Absent
HEART SOUND : Normal	ADDITIONAL FINDING IF ANY : Absent
3. RESPIRATORY SYSTEM	4
SHAPE OF CHEST : Normal	CHEST MOVEMENTS : Normal
TRACHEA : Normal	BREATH SOUNDS : Normal
4. GASTRO-INTESTINAL SYSTEM	
LIVER : Note Palpabel	SPLEEN : Note Palpabel
ANY ABDOMINAL LUMP : Absent	
5. EXAMINATION OF EYE	
EXTERNAL EXAMINATIN SQUINT : Normal	NYSTAGMUS : Normal
COLOUR VISION : Normal	FUNDUS : Normal
INDIVIDUAL COLOUR IDENTIFICATION : Normal	
DISTANT VISION (WITHOUT GLASSES)	NEAR VISION (WITHOUT GLASSES)
RIGHT : 6/6 LEFT : 6/6	RIGHT : N/6 LEFT : N/6
DISTANT VISION (WITH GLASSES)	NEAR VISION (WITH GLASSES)
RIGHT : LEFT :	RIGHT : LEFT :

#### 6. EXAMINATION EAR, NOSE & THROAT : EXTERNAL EXAMINATION :- Normal

#### 7. GENITO URINARY SYSTEM

HERNIA : Absent	HYDROCELE / VERICOCELE : Absent	HYDROCELE / VERICOCELE : Absent CRYPTORCHISISM : Absent	
PHIMOSIS : Absent	VARICOSE VEIN : Absent SIGNS OF STD : Absent		
OTHER EXAMINATIN FOR FEMALES :	MENSTRUAL HISTORY OBSTERIC HISTORY		
MENARCHE AT : YRS :	GRAVIDA :	PARA:	
LMP :	MENSTRUL IRREGULARITY IF ANY :		

RADIOLOGY

DR. RAJESH RUPRELA MBBS, DMRE, FICA (USA), MRSH (LONDON) Radiologist RADIOLOGY



G.E. ROAD KATCHERY CHOWK, RAIPUR

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### INVESTIGATION

#### 8. LAB INVESTIGATION :

HEMOGRAM	LIPID PROFILE	HEPATIC PROFILE	
HB : 13.6 gm %	Cholesterol : 168.0 mg/dl	Bilirubin : (Total) 0.69 mg %	
TLC : 6500 cmm	Tryglyceride : 172.0 mg/dl	Bilirubin (Direct) : 0.20 mg %	
DLC : P 47 L 48 E 02 M 03 B 00	HDL : 49.0 mg/dl	Bilirubin (Indirect) : 0.49 mg %	
RBC : 5.5 million/cmm	LDL : 84.60 mg/dl	SGOT : 36.0 IU/L	
Platelet : 267 lacs/cmm	VLDL : 34.40 mg/dl	SGPT : 32.0 IU/L	
ESR : 05 mm/hr	CHO:HDL :	ALK PHOS 105.0 IU/L	
Blood Group : O- RH Type : Negative			
METABOLIC	OTHER INVESTIGATION	URINE EXAMINATION	
B.Sugar (F) : 95.0 mg/dl	Anti HIV 1 & 2 :	Urine Albumin : Nil	
B.Sugar (PP): 105.0 mg/dl	HBsAg :	Urine Sugar : Nil	
Uric Acid : 4.5 mg/dl	Anti HCV :	Microscopy : Nil	
Blood Urea : 23.0 mg/dl	Syphilis :		
SR CREAT : 0.75 mg/dl	THS:		
STOOL : mg/dl	WIDAL :		

#### 9. OTHER INVESTIGATIONS :

a. ECG (In case of any abnormality further test should be carried out.) : Normal

b. X ray chest (In normal person once in 3 years, in case of any abnormality X ray can be done at shorter intervals.) : Normal

c. Ultrasound whole abdomen (In normal person once in 3 years, in case of any abnormality X ray can be done at shorter intervals.) : N/A

d. Others :

#### **10. PULMONARY FUNCTION TESTS :**

	FVC	FEC 1	FEC1/FVC
Predicted			
Measured			
% of Predicted	095	113	119

Remarks : Normal

11. AUDIOMETRY EXAMINATION : Normal

12. MEDICAL EXAMINATION OF CANTEEN STAFF :

13. Detail of other specific medical examination carried out as mentioned in the respective in the respective schedules or rule 107 pf CG factories rules 1962.

#### Signature (with date) of factory medical officer

Rubse

Signature (with date) of certifying surgeon

CR. HARSHAD RUPRELA MBBS. DMRO. D.N.B. REG. NO.: CGMC 6849/2016

RADIOLOGY

DR. RAJESH RUPRELA MBBS, DMRE, FICA (USA), MRSH (LONDON) Radiologist RADIOLOGY



G.E. ROAD KATCHERY CHOWK, RAIPUR

TEL:0771-2234270

M:7470889922

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### Name : ANIL KUMAR DWIVEDI Report Printed ON At : 22-02-2023 Consultanct : HIRA POWER & STEEL LTD URLA

Age / Sex: 32 Y / Male Sample Received On/At: 22-02-2023

	н	laematology	
Parameter	Result	Unit	Normal Range
ABO Group	0-		
Rh Type	Negative		
Total WBC Count	6500	/cumm	4000-11000
Total RBC	5.5	10^6/µl	3.50-5.50
Haemoglobin	13.6	g/dl	12.0-16.5
Platelet Count	267	10^3/µl	150-450
Neutrophils	47	%	40-75
Lymphocytes	48	%	20-40
Eosinophils	02	%	1-6
Monocytes	03	%	1-10
Basophils	00	%	0-1
ESR	05	mm at 1hr	05-20

#### CHECKED BY

Sahr

DR. SHRADDHA SAHU MBBS.MD (Pathology) (Pathologiat) SAHU DR. SHRADDHA) SAHU MBBS. MD. (PATHOLOGY) REG.NO.-C.G.M.C. 6485/2016

RADIOLOGY

DR. RAJESH RUPRELA MBBS, DMRE, FICA (USA), MRSH (LONDON) Radiologist

RADIOLOGY



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### Name : ANIL KUMAR DWIVEDI Report Printed ON At : 22-02-2023 Consultanct : HIRA POWER & STEEL LTD URLA

Age / Sex: 32 Y / Male Sample Received On/ At : 22-02-2023

	Bio Chemistry		
Parameter	Result	Unit	Normal Range
Urea	23.0	mg/dl	15-45
Serum Creatinine	0.75	mg/dl	0.6-1.4
Uric Acid	4.5	mg/dl	3.6-7.0
Bilirubin - Total	0.69	mg/dl	0.1-1.2
Bilirubin - Direct	0.20	mg/dl	0-0.3
Bilirubin - (Indirect)	0.49	mg/di	0-0.6
SGOT(AST)	36.0	U/L	0-45
SGPT(ALT)	32.0	U/L	0-45
Alkaline Phosphatase(ALP)			
Alkaline Phosphatase(ALP)	105.0	U/L	41-270
Total Cholesterol	168.0	mg/dł	150-200
Trigtycerides	172.0	mg/dl	35-170
HDL Cholesterol	49.0	mg/dl	35-70
VDL Cholesterol	84.60	ing/dl	Less than 100
LDL Cholestrol	34.40	mg/dl	7-35
Blood Sugar Fasting	95.0	mg/dl	70-110
Blood Sugar	105.0	mg/dl	80-140

CHECKED BY

DR. SHRADDHA SAHU MBBS.MD (Pathology) (Pathologist) )R. SHRADDHA SAHU MBBS. MD. (PATHOLOGY) EG. NO.-C.G.M.C. 6485/2016

RADIOLOGY

DR. RAJESH RUPRELA MBBS, DMRE, FICA (USA), MRSH (LONDON) Radiologist

RADIOLOGY



G.E. ROAD KATCHERY CHOWK, RAIPUR

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### X-ray & Advanced Diagnostic Centre

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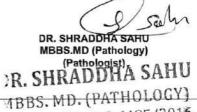
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### Name : ANIL KUMAR DWIVEDI Report Printed ON At : 22-02-2023 Consultanct : HIRA POWER & STEEL LTD URLA

Age / Sex: 32 Y / Male Sample Received On/ At : 22-02-2023

	CLINICA	L PATHOLOGY		
Parameter	Result	Unit	Normal Range	
	URINE	ROUTINE ANI		
Physical Examination				
Colour	Pale Yellow			
Quantity	30	ml	>30	
Appearance	Clear	-	Clear	
Reaction	Acidic	-	Acidic	
Chemical Examination				
Albumin	Nil	-	NIL	
Sugar	Nil	%	NIL	
Wicroscopy Examination				
RBC	Nil	/hpf	NIL	
PUS Cells	2-4	/hpf	< 5	
Epithelial Cells	1-2	/hpf	< 3	
Crystals	Absent	*	Absent	
Casts	Absent	14	Absent	
Bacteria	Absent	-	Absent	
Other (Urine)				

CHECKED BY



EG. NO.-C.G.M.C. 6485/2016

RADIOLOGY

DR. HARSHAD RUPRELA MBBS, DMRD, DNB (MUMBAI) Radiologist

RADIOLOGY

DR. RAJESH RUPRELA MBBS, DMRE, FICA (USA), MRSH (LONDON) Radiologist



G.E. ROAD KATCHERY CHOWK, RAIPUR

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Name : ANIL KUMAR DWIVEDI Report Printed ON At : 22-02-2023 Consultanct : HIRA POWER & STEEL LTD URLA Age / Sex: 32 Y / Male Sample Received On/At : 22-02-2023

### EYE EXAMINATION

Squint : : Normal

External Exam : Normal Nystagmus : Normal Colour Vision -Fundus - (L): Normal (R): Normal Individual Colour Identification : Normal Distant Vision (without Glass) Right : 6/6 Left : 6/6 (With Glass) Right : Left : Near Vision (Without Glass) Right : N/6 Left : N/6 (With Glass) Right : Left : Night Blindness(Nyctalopia) : Normal

> 2-J DR. EKTA BATÁVIA JAIN MBBS, DNB (OPTHALMOLOGY) FVR

> > RADIOLOGY

DR. HARSHAD RUPRELA MBBS, DMRD, DNB (MUMBAI) Radiologist

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Age / Sex: 32 Y / Male Sample Received On/ At : 22-02-2023

### X-RAY CHEST (PA) VIEW

### OBSERVATION

- · Both hilar shadows appear normal.
- · Both lung fields are clear.
- · Both costo phrenic angles are normal.
- · Cardiothoracic ration is within normal limits.
- · Trachea centrally placed.
- Soft tissue and bony cage appear normal.
- · Both Hemidiaphragms are well outlined.

### IMPRESSION

Normal Study.

Suggest : Clinical Correlation.

DR. RAJESH RUPRELA MBBS,DMRE,FICA(USA), MRSH(London)

DR. HARSHAD RUPRELA MBBS DMRD DNB (Mumbai) DR. HARSHAD RUPRELA MBBS. DMRO. D.N.B. REG. NO.: CGMC 6849/2016

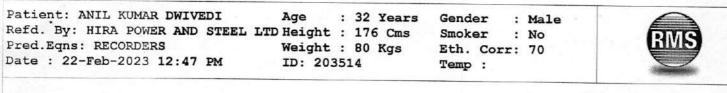
RADIOLOGY

#### DR. RAJESH RUPRELA MBBS, DMRE, FICA (USA), MRSH (LONDON) Radiologist

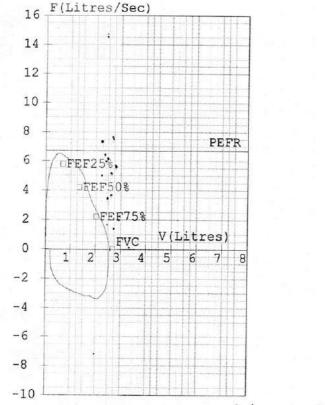
RADIOLOGY

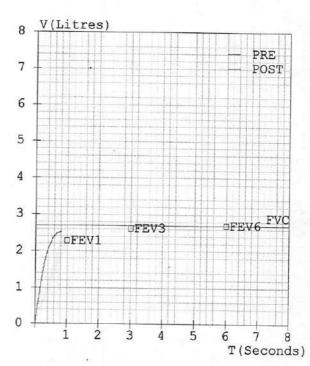
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### 181/5, Phase-I, Industrial Area, Chandigarh-160002



36





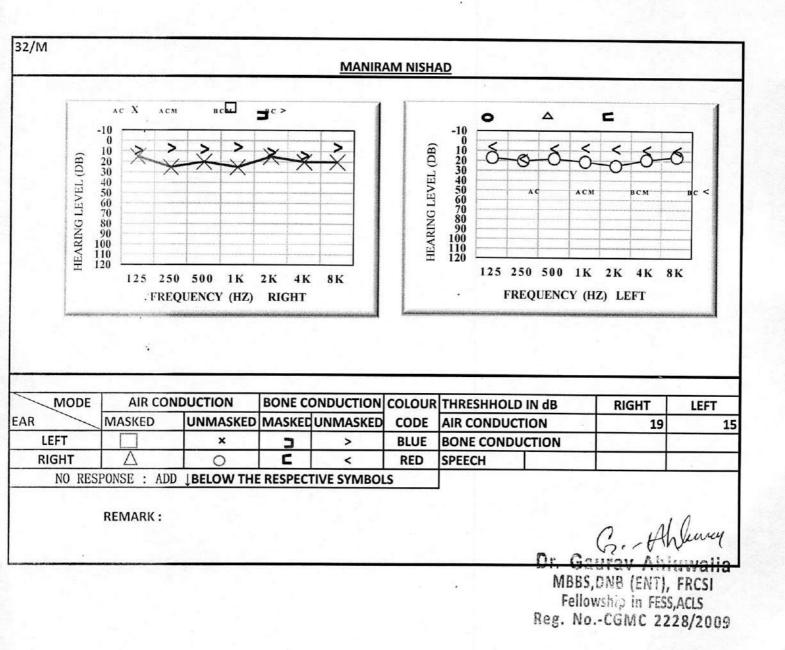
### Spirometry (FVC Results)

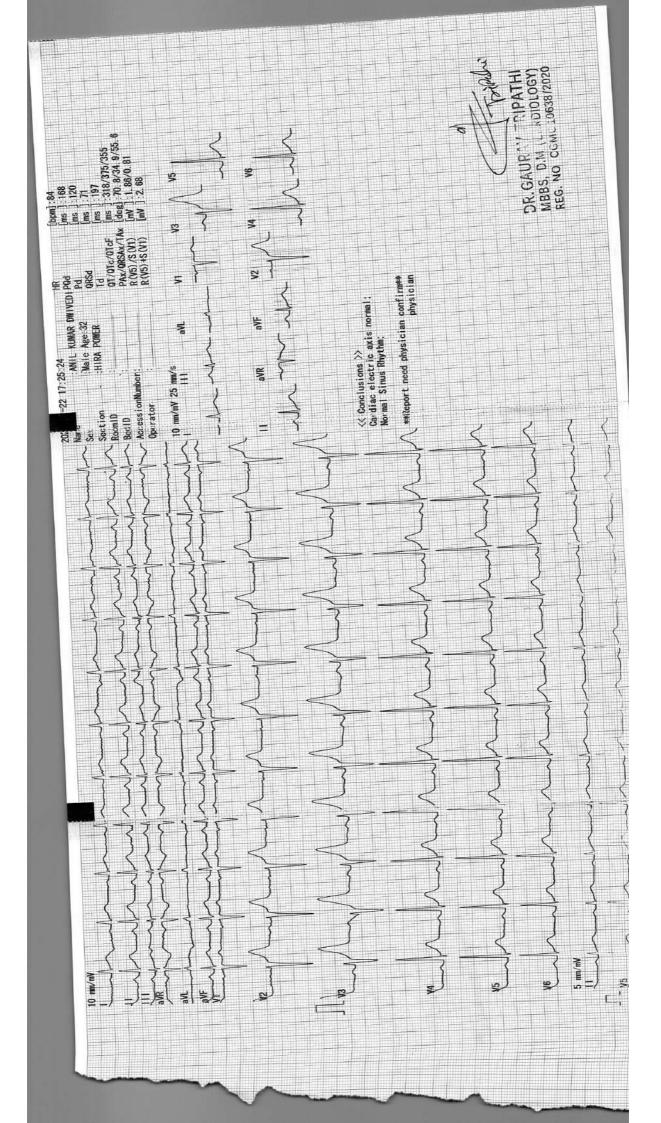
Parameter		Pred	M.Pre	%Pred	M.Post	%Pred	%Imp	10 M
FVC.	(L)	02.70	02.56	095				
FEVÍ	(L)	02.27	02.56	113				
FEV1/FVC	(%)	84.07	100.00	119				
FEF25-75	(L/s)	03.09	04.93	160				
PEFR	(L/s)	06.69	06.45	096				
FIVC	(L)		02.40					
FEV.5	(L)		02.25					
FEV3	(L)	02.62	02.56	098				
PIFR	(L/s)		03.33					
FEF75-85	(L/s)		02.39					
FEF.2-1.2	(L/s)	05.42	06.07	112				
FEF 25%	(L/s)	05.78	06.35	110				
FEF 50%	(L/s)	04.21	05.52	131				
FEF 75%	(L/s)	02.19	02.96	135				
FEV.5/FVC	(%)		87.89					
FEV3/FVC	(%)	97.04	100.00	103				B.D
FET	(Sec)		00.92					~ ~ ~
ExplTime	(Sec)		00.08					Pr. B. B. KUMAR
Lung Age	(Yrs)	032	028	088				MBBS, M. Medicine)
FEV6	(L)	02.70						Reg. No. WB 52411
FIF25%	(L/s)		03.29					
FIF50%	(L/s)		03.13					
FIF75%	(L/s)		02.72					

# RUPRELA X-RAY AND ADVACED DIAGNOSTIC CENTER

56

COMPANY : HIRA POWER AND STEEL LTD R.D. NO. : 56 NAME : ANIL KUMAR DWIVEDI AGE : 32/M DATE : 22/02/2023





ANIL KUMAR DWIVEDI Acq:2023-02-23, 15:27:06 DAP:0.0 PID:1790 DOB:1991-02-23 kVp:120.0 Age: 032Y mA: 125 Sex: M mAs: 2.50 Acc#:2023022315165989 ms:20 Chest PA 20 cm RelativeEXI: 737 EXI:122.83 DI:-3.1 Zoom:95% (T) WW:4096 WL:2048 Virtual Hospital



G.E. ROAD KATCHERY CHOWK, RAIPUR

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- DIGITAL OPG DIGITAL MAMOGRAPHY SONOMAMMOGRAPHY ELASTOGRAPHY BMD/DEXA SCAN ECHOCARDIOGRAPHY
- COMPUTERISED ECG VIDEO DIGITAL EEG BERA SPIROMETER PATHOLOGY HISTO-PATHOLOGY CYTOLOGY

FORM 21 (Annexure) [prescribed under Rule(19)] Health Register (in respect of persons employed in occupation declared to be dangerous operation under section 87) PRE-EMPLOYEMENT & PERIODIC MEDICAL EXAMINATION

### **Registration No: 114**

Registration No : 114	Date : 22-02-2023		
Name : AJAY VERMA	Age (Years): 36	Gender : Male	
Nature of Employment :	Employee No. : 2036		
Date of Joining :	Last Medical Date :		
Department : CCS	Designation : SUPERVISOR		
No. of Working Year : Previous Working :	Mobile No. :		
ESIC Number :	Aadhar No.:		
1. GENERAL EXAMINATION			

HEIGHT: 175 cm	WEIGHT: 89 Kg	BMI : 29.06		
CHEST INSPIRATION : 109 cm	EXPIRATION : 104 cm	BUILT : Average		
THROAT : Normal	THYROID : Note Palpabel	LYMPH NODES : Note Palpabel		
TOUNGE : Normal	TEETH : Normal	GUMS : Normal		
TONSILS : Normal	ADDITIONAL FINDING IF ANY : Absent	ADDITIONAL FINDING IF ANY : Absent		

2. CARDIO-VASCULAR SYSTEM			
PULSE : 92/min Regular	PERIPHERAL PULSE : Felt		
BP : 125/70 mmHg	MURMUR IF ANY : Absent		
HEART SOUND : Normal	ADDITIONAL FINDING IF ANY : Absent		
3. RESPIRATORY SYSTEM			
SHAPE OF CHEST : Normal	CHEST MOVEMENTS : Normal		
TRACHEA : Normal	BREATH SOUNDS : Normal		
4. GASTRO-INTESTINAL SYSTEM			
LIVER : Note Palpabel	SPLEEN : Note Palpabel		
ANY ABDOMINAL LUMP : Absent			
5. EXAMINATION OF EYE			
EXTERNAL EXAMINATIN SQUINT : Normal	NYSTAGMUS : Normal		
COLOUR VISION : Normal	FUNDUS : Normal		
INDIVIDUAL COLOUR IDENTIFICATION : Normal			
DISTANT VISION (WITHOUT GLASSES)	NEAR VISION (WITHOUT GLASSES)		
RIGHT : 6/6 LEFT : 6/6	RIGHT : 6/9 LEFT : 6/9		
DISTANT VISION (WITH GLASSES)	NEAR VISION (WITH GLASSES)		

RIGHT : LEFT : RIGHT : LEFT : 6. EXAMINATION EAR, NOSE & THROAT : EXTERNAL EXAMINATION :- Normal

### 7. GENITO URINARY SYSTEM

HERNIA : Absent	HYDROCELE / VERICOCELE : Absent	CRYPTORCHISISM : Absent	
PHIMOSIS : Absent	VARICOSE VEIN : Absent	VARICOSE VEIN : Absent SIGNS OF STD : Absent	
OTHER EXAMINATIN FOR FEMALES :	MENSTRUAL HISTORY OBSTERIC HISTORY		
MENARCHE AT : YRS :	GRAVIDA :	PARA:	
LMP:	MENSTRUL IRREGULARITY IF ANY :		

### RADIOLOGY

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### INVESTIGATION

#### 8. LAB INVESTIGATION :

HEMOGRAM	LIPID PROFILE	HEPATIC PROFILE
HB : 13,7 gm %	Cholesterol: 176.0 mg/dl	Bilirubin : (Total) 0.46 mg %
TLC : 8500 cmm	Tryglyceride : 137.0 mg/dl	Bilirubin (Direct) : 0.20 mg %
DLC : P 60 L 37 E 02 M 01 B 00	HDL : 50.0 mg/dl	Bilirubin (Indirect) : 0.26 mg %
RBC : 4.9 million/cmm	LDL : 98.60 mg/dl	SGOT : 27.0 IU/L
Platelet : 216 lacs/cmm	VLDL : 27.40 mg/dl	SGPT : 31.0 IU/L
ESR : 08 mm/hr	CHO:HDL :	ALK PHOS 113.0 IU/L
Blood Group : B+ RH Type : Positive		
METABOLIC	OTHER INVESTIGATION	URINE EXAMINATION
B.Sugar (F) : 103.0 mg/dl	Anti HIV 1 & 2 :	Urine Albumin : Nil
B.Sugar (PP): 129.0 mg/dl	HBsAg :	Urine Sugar : Nil
Uric Acid : 5.6 mg/dl	Anti HCV :	Microscopy : Nil
Blood Urea : 30 mg/dl	Syphilis :	
SR CREAT : 0.90 mg/dl	THS :	
STOOL : mg/dl	WIDAL :	

#### 9. OTHER INVESTIGATIONS :

a. ECG (In case of any abnormality further test should be carried out.) : Normal

b. X ray chest (In normal person once in 3 years, in case of any abnormality X ray can be done at shorter intervals.): Normal

c. Ultrasound whole abdomen (In normal person once in 3 years, in case of any abnormality X ray can be done at shorter intervals.) : N/A

d. Others :

#### **10. PULMONARY FUNCTION TESTS :**

	FVC	FEC 1	FEC1/FVC
Predicted			
Measured			
% of Predicted	077	093	121

Remarks : Normal

11. AUDIOMETRY EXAMINATION : Normal

12. MEDICAL EXAMINATION OF CANTEEN STAFF :

13. Detail of other specific medical examination carried out as mentioned in the respective in the respective schedules or rule 107 of CG factories rules 1962.

#### Signature (with date) of factory medical officer

Rubrela

Signature (with date) of certifying surgeon

DR. HARSHAD RUPRELA MBBS. DMRO. D.N.B. REG. NO.: CGMC 6849/2016

RADIOLOGY

DR. RAJESH RUPRELA MBBS, DMRE, FICA (USA), MRSH (LONDON) Radiologist RADIOLOGY



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### Name : AJAY VERMA Report Printed ON At : 22-02-2023 Consultanct : HIRA POWER & STEEL LTD URLA

Age / Sex: 36 Y / Male Sample Received On/ At : 22-02-2023

	ł	laematology	
Parameter	Result	Unit	Normal Range
ABO Group	B+		
Rh Type	Positive		
Total WBC Count	8500	/cumm	4000-11000
Total RBC	4.9	10^6/µI	3.50-5.50
Haemoglobin	13.7	g/dl	12.0-16.5
Platelet Count	216	10^3/µl	150-450
Neutrophils	60	%	40-75
Lymphocytes	37	%	20-40
Eosinophils	02	%	1-6
Monocytes	01	%	1-10
Basophils	00	%	0-1
ESR	08	mm at 1hr	05-20

#### CHECKED BY



MBBS.MD (Pathology) (Pathologist)

### DR. SHRADDHA SAHU

1BBS. MD. (PATHOLOGY) EG. NO.-C.G.M.C. 6485/2016

RADIOLOGY

DR. RAJESH RUPRELA MBBS, DMRE, FICA (USA), MRSH (LONDON) Radiologist RADIOLOGY



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### Name : AJAY VERMA

Report Printed ON At : 22-02-2023 Consultanct : HIRA POWER & STEEL LTD URLA Age / Sex: 36 Y / Male Sample Received On/ At : 22-02-2023

	Bio Chemistry		
Parameter	Result	Unit	Normal Range
Urea	30	mg/dl	15-45
Serum Creatinine	0.90	mg/dl	0.6-1.4
Uric Acid	5.6	mg/dl	3.6-7.0
Bilirubin - Total	0.46	mg/dl	0.1-1.2
Bilirubin - Direct	0.20	mg/dl	0-0.3
Bilirubin - (Indirect)	0.26	mg/di	0-0.6
SGOT(AST)	27.0	U/L	0-45
SGPT(ALT)	31.0	U/L	0-45
Alkaline Phosphatase(ALP)			
Alkaline Phosphatase(ALP)	113.0	U/L	41-270
Total Cholesterol	176.0	mg/dl	150-200
Triglycerides	137.0	mg/dl	35-170
HDL Cholesterol	50,0	mg/dl	35-70
VDL Chelesterol	98.60	mg/dl	Less than 100
LDL Cholestrol	27.40	mg/dl	7-35
Blood Sugar Fasting	103.0	mg/dl	70-110
Blood Sugar	129.0	mg/dl	80-140

CHECKED BY

DR. SHRADDHA SAHU MBBS.MD (Pathology) (Pathologist)

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ABBS. MD. (PATHOLOGY) EG. NO.-C.G.M.C. 6485/2016

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Age / Sex: 36 Y / Male Sample Received On/ At : 22-02-2023

	CLINIC	AL PATHOLOGY		
Parameter	Result	Unit	Normal Range	
	URINE	ROUTINE ANI		
Physical Examination				
Colour	Pale Yellow			
Quantity	30	ml	>30	
Appearance	Clear	-	Clear	
Reaction	Acidic	(-)	Acidic	
Chemical Examination				
Albumin	Nil	-	NIL	
Sugar	Nil	%	NIL	
Microscopy Examination				
RBC	Nil	<i>I</i> hpf	NIL	
PUS Cells	2-4	/hpf	< 5	
Epithelial Cells	1-3	/hpf	< 3	
Crystals	Absent	( <b>-</b> 3	Absent	
Casts	Absent	1	Absent	
Bacteria	Absent	·**	Absent	
Other (Urine)				

CHECKED BY

DR. SHRADDHA SAHU

MBBS.MD (Pathology) (Pathologist)

## **DR. SHRADDHA SAHU**

4BBS. MD. (PATHOLOGY) REG. NO.-C.G.M.C. 6485/2016

RADIOLOGY

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### EYE EXAMINATION

Squint : : Normal

External Exam : Normal Nystagmus : Normal Colour Vision -Fundus - (L): Normal (R): Normal Individual Colour Identification : Normal Distant Vision (Without Glass) Right : 6/6 Left : 6/6 (With Glass) Right : Left : Near Vision (Without Glass) Right : 6/9 Left : 6/9 (With Glass) Right : Left : Night Blindness(Nyctalopia) : Normal

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### X-RAY CHEST (PA) VIEW

### OBSERVATION

- · Both hilar shadows appear normal.
- · Both lung fields are clear.
- · Both costo phrenic angles are normal.
- · Cardiothoracic ration is within normal limits.
- Trachea centrally placed.
- Soft tissue and bony cage appear normal.
- · Both Hemidiaphragms are well outlined.

### IMPRESSION

Normal Study.

Suggest : Clinical Correlation,

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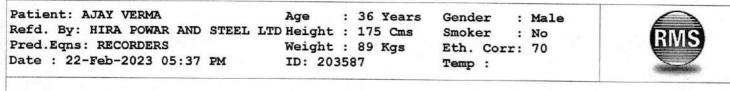
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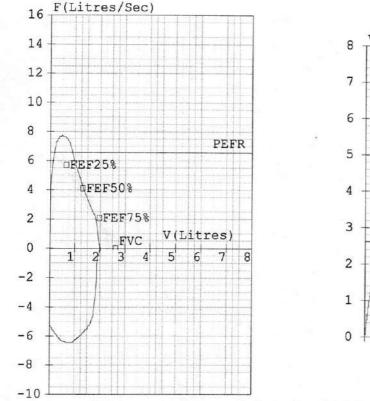
RADIOLOGY

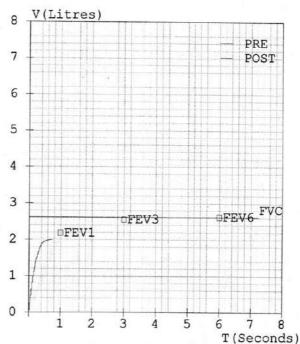
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### 181/5, Phase-I, Industrial Area, Chandigarh-160002







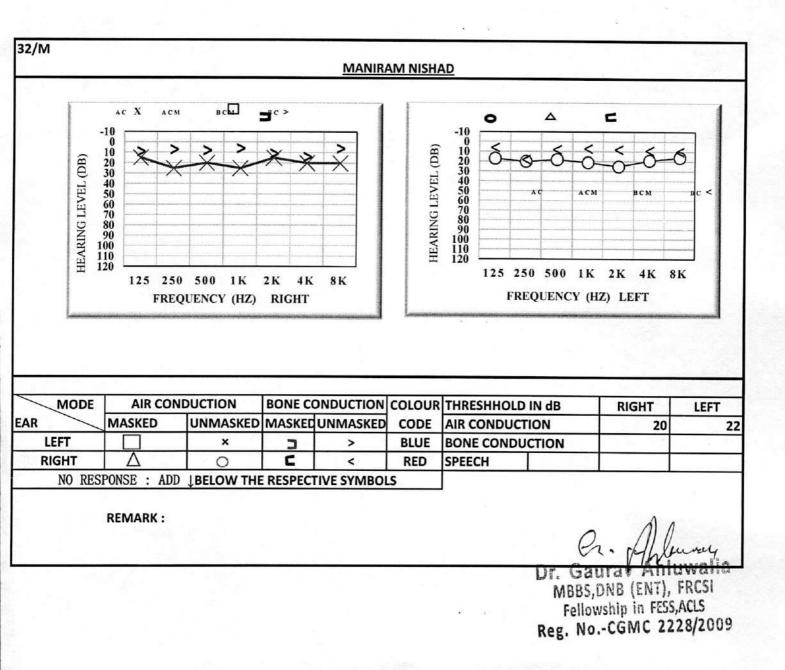
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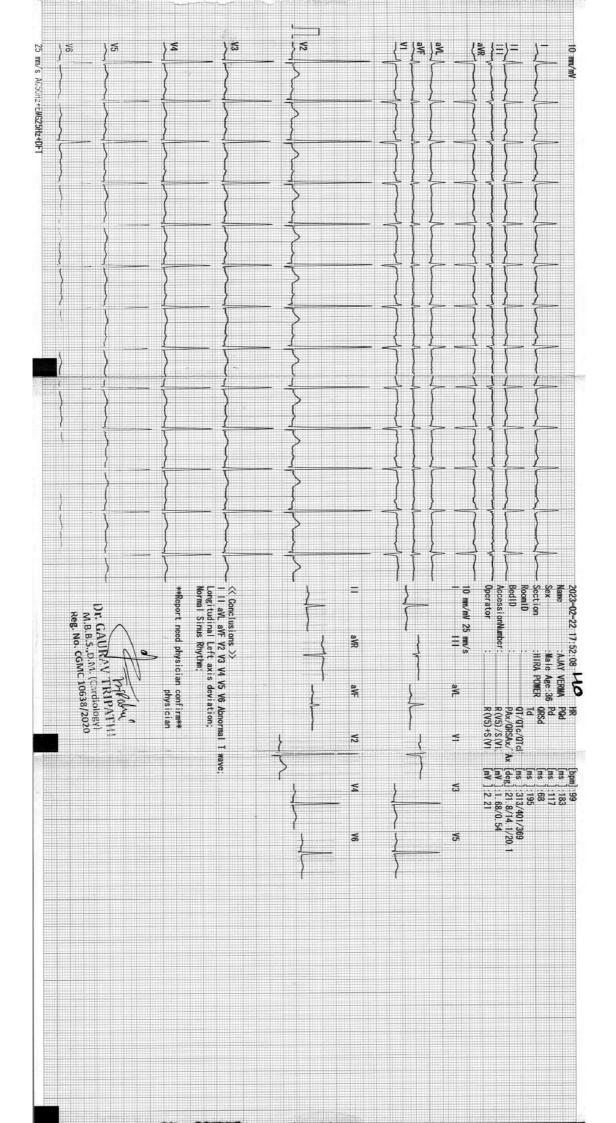
Parameter	2	Pred	M.Pre	<b>Pred</b>	M.Post	%Pred	%Imp
FVC	(L)	02.63	02.02	077			
FEV1	(L)	02.18	02.02	093			
FEV1/FVC	(%)	82.89	100.00	121			
FEF25-75	(L/s)	02.95	05.34	181			
PEFR	(L/s)	06.54	07.68	117			
FIVC	(L)		02.67				
FEV.5	(L)		01.96				
FEV3	(L)	02.55	02.02	079			
PIFR	(L/s)		06.41				
FEF75-85	(L/s)		02.72				
FEF.2-1.2	(L/s)	05.19	06.61	127			
FEF 25%	(L/s)	05.69	07.60	134			
FEF 50%	(L/s)	04.11	05.77	140			
FEF 75%	(L/s)	02.07	03.30	159			
FEV.5/FVC	: (%)		97.03				
FEV3/FVC	(%)	96.96	100.00	103			
FET	(Sec)		00.80				
ExplTime	(Sec)		00.06				
Lung Age	(Yrs)	036	039	108			
FEV6	(L)	02.63					
FIF25%	(L/s)		06.36				
FIF50%	(L/s)		05.32				
FIF75%	(L/s)		00.97				

Dr. B. B. MIMAR MBBJ, Nr. Indicine) Reg. No. WB 52411

# RUPRELA X-RAY AND ADVACED DIAGNOSTIC CENTER

COMPAN	Υ:	HIRA POWER AND STEEL LTD	
R.D. NO.	:	110	
NAME	:	AJAY VERMA	
AGE	:	36/M	
DATE	:	22/02/2023	





AJAY VERMA Acq:2023-02-22, 17:33:43 DAP:0.0 PID:2036 DOB:1987-02-22 kVp:120.0 Age: 036Y mA: 125 mAs: 2.50 Sex: M Acc#:2023022217254632 ms:20 Chest PA 20 cm RelativeEXI: 897 EXI:149.50 DI:-2.2 Zoom:93% (T)

Zoom:93% (T WW:4096 WL:2048

### Virtual Hospital

Annexure-XIV



### Ref: 2175 /HPSL/U2/CPP/22-23/2175

Dated- 24.11.2022

To, The Scientist, Ministry of Environment, Forest & Climate Change, Integrated Regional Office, Aranya Bhawan, North Block, Sector-19, Naya Raipur, Atal Nagar, Chhattisgarh - 492002

Sub: Submission of Half Yearly Environment Clearance Compliance Report of the conditions stipulated in Environmental clearance for the period of April 2022 to September 2022

Ref: Environmental Clearance F.No. J-11011/836/2008/IA.II()) Dated 11.02.2009

Respected Sir,

With reference to above subject, we are enclosing herewith Half Yearly Environment Clearance Compliance Report of the conditions stipulated in Environmental clearance accorded by MOEF vide F.No.J-11011/836/2008/IA.II(I) Dated 11 02 2009 for the period of April 2022 to September 2022 in respect of Hira Power and Steels Ltd. Unit-II (Ferro Division), Urla Industrial Complex, Raipur (C.G.)

We hope you will find the above Half Yearly Environment Clearance Compliance Report up to your satisfaction. Your valuable guidance further in this regard shall be highly appreciated.

Kindly acknowledge the receipt of the same.

Yours faithfully,

For, HIRA POWER AND STEELS LIMITED, UNIT- II (Ferro Division)

for Avial Liwon

Authorized Signatory

Encl: As Above







Hira Power & Steels Limited An ISO 9001:2015 Certified Company CIN: U24117CT1984PLC002512

Registered Office & Wolls: Khasra No. 511/1, 512/2, Urla Industrial Complex, Raipur - 492003, Chhattisgarh, India P:+91 771 4082500, 4082600, F:+91 771 4082501, E: admin@hpslindia.com www.hpslindia.com, www.hiragroup.com

# HIRA POWER & STEELS

Copy to:

- The Director, Zonal Office, Central Pollution Control Board, 4<sup>th</sup> Floor, Sahkar Bhawan, North TT Nagar, Bhopal-462003.
- The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhawan, North Block, Sector-19, Atal Nagar, Raipur (CG) – 492 002.
- The Regional Officer, Regional Office, Chhattisgarh Environment Conservation Board Commercial Complex Chhattisgarh Housing Board Colony, Kabir Nagar, Raipur (CG) – 492 001.

Hira Power & Steels Limited An ISO 9001:2015 Certified Company CIN: U24117CT1984PLC002512

Registered Office & Works : Khasra No. 511/1, 512/2, Urla Industrial Complex, Raipur - 492003, Chhattisgarh, India P : +91 771 4082500, 4082600, F : + 91 771 4082501, E : admin@hpslindia.com www.hpslindia.com, www.hiragroup.com