

Your (**Half Yearly Compliance Report**) has been **Submitted** with following details

<b>Proposal No</b>	IA/CG/IND1/425728/2023
<b>Compliance ID</b>	127231858
<b>Compliance Number(For Tracking)</b>	EC/COMPLIANCE/127231858/2025
<b>Reporting Year</b>	2025
<b>Reporting Period</b>	01 Jun(01 Oct - 31 Mar)
<b>Submission Date</b>	19-05-2025
<b>RO/SRO Name</b>	Shri Senthil Kumar Sampath
<b>RO/SRO Email</b>	agmu156@ifs.nic.in
<b>State</b>	CHHATTISGARH
<b>RO/SRO Office Address</b>	Integrated Regional Offices, Raipur

**Note:-** SMS and E-Mail has been sent to Shri Senthil Kumar Sampath, CHHATTISGARH with Notification to Project Proponent.





## HIRA POWER & STEELS

Ref: 2040/HPSL-U2/2025-26/2040

Dated 16.05.2025

To,  
The Compliance Division,  
Monitoring Cell,  
Ministry of Environment, Forest & Climate Change,  
Government of India, Indira Paryavaran Bhawan,  
Aliganj, Jor Bagh Road,  
NEW DELHI- 110 003, India

**Sub: Submission of Half Yearly Environment Clearance Compliance Report of the conditions stipulated in Environmental clearance for the period of October 2024 to March 2025.**

**Ref: Environmental Clearance F.No. J-11011/836/2008/IA.II(I) Dated 11.02.2009 and 05.02.2024**

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 vide File No. IA-J-11011/836/2008-IA-II (IND-I) Dated 11.02.2009 and 05.02.2024 for the period of October 2024 to March 2025 in respect of Hira Power and Steels Ltd. Unit-II, 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.

Thanking you,

Yours faithfully,

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

  
**AUTHORIZED SIGNATORY**

Encl: As Above

Copy to:

1. The Director, Zonal Office, Central Pollution Control Board, 4<sup>th</sup> Floor, Sahkar Bhawan, North TT Nagar, Bhopal-462003.
2. The Deputy Director, General of Forests(C), Ministry of Environment, Forest and Climate Change, Integrated Regional office, Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur- 440 001 (M.S.)
3. The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhawan, North Block, Sector-19, Atal Nagar, Raipur (CG) – 492 002.
4. The Regional Officer, Regional Office, Chhattisgarh Environment Conservation Board, New office Building, Ring Road No. 2, Near CSEB Office, Tatibandh, Raipur (C.G.) – 492009

**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





**HALF YEARLY COMPLIANCE REPORT**

**OF**

**THE CONDITIONS STIPULATED IN**

**ENVIRONMENTAL CLEARANCE**

**FOR**

**THE PERIOD OF**

**OCTOBER 2024– MARCH 2025**

**HIRA POWER & STEELS LTD.**

**UNIT-II**

**Urla Industrial Complex, Raipur (C.G.) 492003**



# GURUKRIPA ENVIRO CARE PVT. LTD.

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**Monitoring the Implementation of Environmental Safeguards**  
**Ministry of Environment, Forest & Climate Change (MoEFCC)**  
**Regional Office (W), Bhopal**  
**Environmental Clearance from MoEFCC, New Delhi vide File No.**  
**IA-J-11011/836/2008-IA-II (IND-I) Dated 11.02.2009 and Dated 05.02.2024**

S. No.	Particular	Reply
1.	Project Type: River-Valley / Mining / Industry / Thermal / Nuclear / other (Specify)	Ferro Alloys Plant
2.	Name of the Project	Hira Power and Steels Limited, Unit-II
3.	Clearance Letter(s)/ OM No. & Date	<b>IA-J-11011/836/2008-IA-II (IND-I) Dated 11.02.2009 and Dated 05.02.2024</b>
4.	Location	
	a). District (s)	Raipur
	b). State (s)	Chhattisgarh
	c). Latitude / Longitude	Latitude 21°18'57.70"N Longitude 81°37'15.68"E
5.	Address for Correspondences	
	a). Address of Concerned Project Chief Engineer with Pin code & Telephone / Telex / Fax Numbers.	Mr. Umesh Patel, Hira Power and Steels Limited, Unit-II Urla Industrial complex, Raipur Chhattisgarh
	b). Address of Executive Project Engineer / Manager (with Pin code / Fax Number)	Mr. Aviral Tiwari, Hira Power and Steels Limited, Unit-II Urla Industrial complex, Raipur Chhattisgarh
6.	<b>a). Salient Features of the Project:</b>	<b>As follows:</b>
	<b>Components</b>	<b>Proposed Scenario</b>
	EC No.	IA-J-11011/836/2008-IA-II(IND-I)
	Environmental Clearance Accorded For	Ferro Alloys Plant
	Power Requirement	18.9 MW
	Source of Power	Captive power plant and or State power distribution company.
	Fresh Water Requirement	542 KLD
	Source of Water Supply	CSIDC and Ground Water
	Wastewater Generation	200 KLD
	Process Emission	
	Flue Gas Emission	339.30 kg/Day
	Fuel Type	Coal and coke







S. No.	Particular	Reply
	Fuel Requirement	36000 TPA
	Man Power	523
b). Environmental Management Plan		As follows:
S. No.	Activity	Status
1.	Formulation of EHS cell Constitutes EHS in charge, ETP super visor and operators, Lab chemist and assistants	We have already formulated an EHS Cell with persons from every departments
2.	<b>For Air Environment Management:</b> <ul style="list-style-type: none"><li>To monitor the ambient air quality parameters and flue gas emissions within premises and also in the nearby area regularly and to compare with the regulating standards so that any necessary corrective actions can be taken.</li><li>Work place monitoring to be carried out periodically to check fugitive emissions, if any.</li><li>To develop and maintain greenbelt, in and around the factory, for reducing the effect of air pollutants due to their deposition.</li><li>To follow proper loading and unloading practices to minimize dusting.</li><li>To maintain proper record for the fuel consumption, start-up time and duration of boiler operation towards energy conservation.</li></ul>	<p>We have installed Continuous Ambient Air Monitoring system (CAAQMS) and also installed Continuous Emission Monitoring System (CEMS) to monitor all the parameters on real time basis as per the standards of Chhattisgarh Environment Conservation Board and Ministry of Environment, Forest and Climate change.</p> <p>There is very less fugitive emission generation, However Fugitive Emission is Monitored on six monthly basis .</p> <p>Till date we have planted trees as below:- Inside Plantation= 17625 No. (in 14.65 Acres ) Outside Plantation=3215 No. (in 3.28 Acres) Total Plantation=20,840 No. We would like to inform you that we have achieved the target of more than 40% greenbelt. We are increasing the density of existing plantation inside the plant premises. Greenbelt Length towards the west side is ranging from 40m to 160m (including tall trees and good canopy).Damaged plants are being replaced with new plants every year.</p> <p>We are following proper loading and unloading practices as per the CECB and MoEF &amp; CC norms.</p> <p>We are maintaining proper record for the fuel consumption, start-up time and duration of boiler operation towards energy conservation.</p>





S. No.	Particular	Reply
3.	<b>For Water Environment Management:</b> <ul style="list-style-type: none"><li>To investigate possibilities of water reuse and recycling for reducing water consumption and wastewater generation.</li><li>Records of water consumption, effluent generation, effluent discharge, water characteristics, treated and untreated effluent characteristics to be maintained.</li><li>To monitor the adequacy and efficiency of ETP so that the effluent is given suitable treatment and the treated effluent meets specified norms of available CTO of GPCB.</li><li>The effluent collection and discharge drainages, effluent handling and treatment systems to be maintained and regularly monitored to prevent leakages or sudden break-down.</li><li>Proper house-keeping to be adopted to prevent spillages and contaminated surface runoff going to storm water drains.</li></ul>	<p>Waste water after treatment is being used for plantation and dust suppression purposes. Cooling Tower discharge water is being used for dust suppression purpose, inside the plant premises. Domestic waste water after treatment will be used for plantation.</p> <p>We are maintaining all the records of water consumption, effluent generation, effluent discharge, water characteristics, treated effluent characteristics.</p> <p>We are regularly monitoring specified standards of effluent as prescribed in CTO of CECB for effluent treated through siltation tank and reports are being submitted on monthly basis to Chhattisgarh Environment Conservation Board.</p> <p>Daily water requirement is 542 KLD. Waste water generated through process will be 154 KLD. This will be taken to neutralization tank where it is treated and send to siltation tank from where it is reused for dust suppression, ash conditioning etc. Water required for domestic purposes is 58 KLD. Domestic wastewater will be 46 KLD generated. Sanitary waste water will be treated in STP and treated water will be used for green belt and dust suppression purposes.</p> <p>We are following SOP for housekeeping and are maintaining Housekeeping as per the SOP. has developed a well-constructed drainage system with garland drains for collection of storm water into Settling tank.</p>
4.	<b>For Hazardous / Non-Haz. Waste Management</b> <ul style="list-style-type: none"><li>Proper storage and handling arrangements in compliance to the conditions of authorization granted by SPCB.</li></ul>	<p>We are storing the generated Hazardous wastes in separate designated area and in concreted Platform under Covered shed with proper drains all around the storage area.</p> <p>We have displayed proper signboards for</p>







S. No.	Particular	Reply																		
	<ul style="list-style-type: none"> <li>Proper signboards to be provided at relevant places.</li> <li>All the necessary regulatory procedures as per the amended Hazardous Waste Management &amp; Handling Rules - 2003 to be followed and adhered with.</li> <li>The transportation of hazardous waste to the TSDF Site to be as per the guidelines and accompanied with Form-9.</li> <li>Monthly records of generation, storage and disposal of hazardous waste should be maintained in a record register as per the format of Form-3 as per amended Hazardous Waste rules - 2003 and annual returns of disposal to be submitted to SPCB in prescribed Form - 4 and Form - 13.</li> </ul>	<p>hazardous waste at appropriate places.</p> <p>We are complying to regulatory procedures as per the amended Hazardous Waste Management &amp; Handling Rules - 2003</p> <p>Generated hazardous waste i.e Used oil will be given to CECB approved vendors / authorized recycler per the guidelines and accompanied with Form-9.</p> <p>We are maintaining monthly records of generation, storage and disposal of Hazardous waste and are also submitting Form 4 and Form 3 regularly.</p>																		
7.	Breakup of Project Area																			
	a) Submergence area: forest & Non-forest	<table> <tr> <th>S. No.</th><th>Particular</th><th>Area (Ha)</th></tr> <tr> <td>1.</td><td>Buildup Area</td><td>2.955</td></tr> <tr> <td>2.</td><td>Plantation Area</td><td>5.86</td></tr> <tr> <td>3.</td><td>Road and Paved area</td><td>0.79</td></tr> <tr> <td>4.</td><td>Open Land/Parking Area</td><td>7.99</td></tr> <tr> <td></td><td><b>Total area</b></td><td><b>17.6</b></td></tr> </table>	S. No.	Particular	Area (Ha)	1.	Buildup Area	2.955	2.	Plantation Area	5.86	3.	Road and Paved area	0.79	4.	Open Land/Parking Area	7.99		<b>Total area</b>	<b>17.6</b>
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09.	Status of construction (Actual &/or Planned)	Completed																		
10.	Dates of site visits																			
	a) The dates on which the project was monitored by the Regional Office on Previous occasions, if any	21.03.2022																		
	b) Date of site visit for this monitoring project	19.07.2023																		





## Half Yearly Compliance report for the period of October 2024 – March 2025

### Environmental Clearance

Compliance status report of the conditions stipulated in Environmental Clearance accorded by MoEF vide letter File No. IA-J-11011/836/2008-IA-II (IND-I) Dated 11.02.2009 and Dated 05.02.2024 for Expansion of Manufacturing of Ferro Alloys from 48,000 TPA to 64,000 TPA by M/s Hira Power and Steels Limited, located at Khasra No. 156, 500, 508, 509, 510, 511/1, 511/2, 512/1, 512/2, 513/1 - 513/5 and others Urla Industrial Area, Raipur, Chhattisgarh

#### Specific conditions and general condition

A.	Specific conditions	Status									
i.	This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	Agreed, there is no such case is pending at NGT High Courts, Supreme court or in any court of law.									
ii.	The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management and risk mitigation measures relating to the project shall be implemented.	<p>Agreed, we shall comply all the Environment protection measures as recommended in EIA/EMP</p> <p>Sufficient budget have been allocated towards for environmental pollution control measures and risk mitigation measures relating to the project as per conditions stipulated by Ministry of Environment and Forests as well as the State Government.</p> <table border="1"> <thead> <tr> <th>Sr. No.</th><th>Environmental Measures</th><th>Pollution Control</th></tr> <tr> <th></th><th>Facility</th><th>Environment Management cost for the period of October'24 to March'25 (Lakhs)</th></tr> </thead> <tbody> <tr> <td>01.</td><td>3.0 MVA, 3.6 MVA, 5.5 MVA and 5.5 MVA and 6.0 MVA submerged arc furnace, 12MT/Heat CLU converter, Power Plant 20 MW.</td><td>401.16</td></tr> </tbody> </table>	Sr. No.	Environmental Measures	Pollution Control		Facility	Environment Management cost for the period of October'24 to March'25 (Lakhs)	01.	3.0 MVA, 3.6 MVA, 5.5 MVA and 5.5 MVA and 6.0 MVA submerged arc furnace, 12MT/Heat CLU converter, Power Plant 20 MW.	401.16
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iii.	The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon	Agreed, we had submitted decarbonization report along with Final EIA. We shall adopt the next level of latest technologies which will be available in India, for our presently									







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		sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.	installed Pollution Control Equipment to improve air and water quality Implementation shall also be submitted to the IRO,MoEF & CC in this regard.Copy of decarbonization report is attached as <b>Annexure-I.</b>
	iv.	The nearest habitation to plant is Urla Village at distance of 0.84 Km. Proponent shall take appropriate environmental safeguard measures to minimize the impact on the habitation of the locals. PP needs to strengthen green belt all around the plant area to reduce the dust pollution. The PP shall also include this location in its environmental monitoring programme.	Agreed .  All environmental protection measures such as ESPs, Bagfilters, covered conveyers, dust suppression systems, pucca internal roads, mechanical dust sweeper etc. is provided and operated duly and we are ensuring compliance within the norms.  Water spraying will be done periodically in the Urla Village vicinity to control the dust.  Net resultant GLCs after expansion is within the NAAQS.  All transport vehicles possess PUC certification.  We have already developed Greenbelt width towards the west side is ranging from 40m to 160m (including tall trees and good canopy) towards Urla Village.  We have also included Urla Village in our Environment Monitoring Programme.
	v.	The water requirement of 542 m3 /day shall be obtained from CSIDC Ltd. (500 m3/day) and ground water (50 m3 /day) after obtaining approval from the Competent Authority.	Agreed, we have already obtained NOC from CSIDC Ltd. and from Central Ground water Authority. Copies of the same are attached as <b>Annexure-II.</b>
	vi.	Three tier Green Belt shall be developed in at least 40% of the project area in a time period of 1 year as committed all along the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. PP shall also develop greenbelt in the form of shelter belt comprising of total of 6 rows of 2x2 m plantation with tall trees & broad leaves with thick canopy along with windshield inside the plant premises to act as green barrier for air pollution & noise levels towards Urla Village and other sensitive areas nearby project site. Compliance status in this regard, shall be submitted to concern Regional Office of the MoEF&CC.	Agreed and being followed. Till date we have planted trees as below:-  Inside Plantation= 17625 No. (in 14.65 Acres ) Outside Plantation=3215 No. (in 3.28 Acres)  Total Plantation=20,840 No.  We would like to inform you that we have achieved the target of more than 40% greenbelt.  We are increasing the density of existing plantation inside the plant premises.  Greenbelt Length towards the west side is ranging from 40m to 160m (including tall



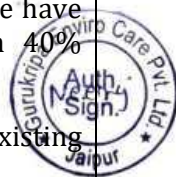
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Sitapura Industrial Area, Jaipur-302022 (Raj.)





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			trees and good canopy).  Damaged plants are being replaced with new plants every year.
	vii.	All the commitments made towards socio-economic development of the nearby villages shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 amounting to Rs. 0.1 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.	Agreed and Implemented. We have spend Approx. Rs 13,06,800.00 for development of Public Bathroom and Toilets at Village Achholi Ward No.-08,Nagar Nigam Birgaon Raipur (C.G).Photograph is enclosed as <b>Annex.-III</b> .
	viii.	As committed, PP shall undertake village adoption programme and prepare and implement the action plan to develop them into a model village.	Agreed .

## B. General conditions

### I. Statutory Compliance :

	i.	The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.	Agreed, all rules acts shall be strictly followed. We have obtained Consent to operate vide letter No. 10518 /TS/CECB/2024 Nava Raipur Atal Nagar, Dated 28 /03/ 2024 for capacity expansion.
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### II. Air Quality monitoring and preservation :

	i.	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as Continuous Ambient Air Quality Station (CAAQMS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act,1986 or NABL accredited laboratories.	Agreed and complied, We have installed 24x7 continuous emission Monitoring system at all the process stacks i.e in combined Stack of Furnace A and B, Combined Stack of Furnace C and D, Furnace E, Combined stack of CLU and Thermit plant and stack of Captive Power Plant and we have connected them to CPCB and CECB Server. We have also installed Continuous Ambient Air Quality Station (CAAQMS) and connected it to CECB server. Calibration of equipments is also being done timely through NABL accredited labs. Please refer to the <b>Annexure-IV</b> (Ambient air quality data) mentioned above and <b>Annexure-V</b> (Stack Monitoring data).
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ii.	The project proponent shall carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area covering upwind and downwind directions.	Agreed and being followed. We have already installed Continuous Ambient Air Quality monitoring within and outside for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions)
iii.	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Agreed, we are carrying out Fugitive emission monitoring through NABL accredited lab.  Fugitive emission report is attached as <b>Annex.-VI(a)</b>
iv.	Sampling facility at process stacks shall be provided as per CPCB guidelines for manual monitoring of emissions.	Agreed and being complied, It is regularly done.
v.	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.	Agreed, following measures have been adopted by us to control fugitive emissions:-  (i) We have installed Polyester Needle Felt high Density With anti Adhesive Treatment in Bag Filters of adequate capacity at all of our existing installed Submerged Arc Furnaces Viz. A, B, C,D,E and CCS units of our Ferro Alloys Divisions. (ii) We have installed Electrostatic Precipitators for controlling emissions from the stack of our Captive Power Plant. (iii) We have installed fogging system on all of conveyor belts and transfer points. (iv) We have installed Mist Canon System in our CHP Area to control fugitive emission. (v) We have covered shed of our Crusher unit to control fugitive dust emission. (vi) All roads are being made RCC. Also cleaning of roads is done by mechanical sweeping machine. We have installed static and mobile water sprinklers to control fugitive dust emissions. Dust bins are kept for maintaining better housekeeping. Photograph





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			attached as <b>Annexure-VI(b)</b> (vii) Truck Mounted sprinkler is also used for dust suppression.
	vi.	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.	Agreed and shall be followed. We are using mechanized pneumatic system for bag cleaning. We are monitoring leakage.
	vii.	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.	Agreed and being done. Vacuum cleaner is used for cleaning.
	viii.	Ensure covered transportation and conveying of raw material to prevent spillage and dust generation. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.	Agreed and is being followed. We are transporting coal and other raw materials by tarpaulin covered trucks to prevent spillage and dust generation.
	ix.	Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.	Agreed and is being followed. We would like to inform that iron ore fines is not generated in our facilities and other coal and coke fines which is generated are utilized in our facilities and fines collected in the Pollution control devices are stored in 01 ton gunny bag fully sealed and after briquetting it is re-used in the process.
	x.	The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.	Agreed and being followed. We have installed fume extraction system at all heat treatment furnaces.
	xi.	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.	Agreed and being followed. High thick plantation is done and heightened boundary wall is constructed.
	xii.	Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.	Not applicable.
	xiii.	Pollution control system in the plant shall be provided as per the CREP Guidelines of CPCB.	Agreed and being followed.
	xiv.	The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.	Agreed, following measures have been adopted by us to control fugitive emissions:- (i) We have installed Polyester Needle Felt high Density With anti Adhesive Treatment in Bag Filters of adequate capacity at all of our existing installed Submerged Arc Furnaces, CCS units of our Ferro Alloys Divisions. (ii) We have installed fogging system on all of conveyor belts and transfer points. (iii) We have installed Mist Canon System in our CHP Area to control fugitive emission.







			<p>(iv) We have covered shed of our Crusher unit to control fugitive dust emission.</p> <p>(v) All roads are being made RCC. Also cleaning of roads is done by mechanical sweeping machine. We have installed static and mobile water sprinklers to control fugitive dust emissions. Dust bins are kept for maintaining better housekeeping. Photograph is attached as <b>Annexure-VI(b)</b>.</p> <p>(vi) Truck Mounted sprinkler is also used for dust suppression inside of plant premises and in the vicinity of surrounding villages.</p>				
	xv.	Bag filters shall be cleaned regularly and efficiency of bag filter system shall be monitored at regular intervals.	Agreed and being followed. We are doing performance evaluation test of all the Bag Filters for efficiency monitoring. Last year Reports are attached as <b>Annexure-VII</b> . Report for this year shall be submitted in next six monthly compliance report.				
	xvi.	Water Sprinklers/Water mist system shall be installed near raw material yards, operational units and other strategic locations to control fugitive emissions from the plant.	Agreed and being followed. We have installed static and mobile water sprinklers near raw material yards, operational units and other locations to control fugitive dust emissions.				
	xvii.	The particulate matter emissions from the process stacks shall be less than 30 mg/Nm <sup>3</sup> and measures shall be undertaken as per the submitted action plan. Efficient Air monitoring equipment shall be installed.	<p>Agreed and being followed. Our emissions is less than 30 mg/Nm<sup>3</sup>. Continuous emission monitoring facility have been installed to the common stack of 3.0 &amp; 3.6 MVA submerged arc furnaces, common stack of 2x5.5 MVA Submerged Arc Furnace, stack attached to 6.0 MVA submerged arc furnace and to the common stack of 12MT/Heat CLU converter.</p> <table><tr><td>Particulars</td><td>3.0 MVA submerged arc furnaces, 3.6 MVA submerged arc furnaces, 2 x 5.5 MVA submerged arc furnace 6.0 MVA submerged arc furnace, 12MT/Heat CLU converter,</td></tr><tr><td>Pollution control Equipments</td><td>Offline pulse jet bag filter</td></tr></table> <p>Air pollution control equipments are</p>	Particulars	3.0 MVA submerged arc furnaces, 3.6 MVA submerged arc furnaces, 2 x 5.5 MVA submerged arc furnace 6.0 MVA submerged arc furnace, 12MT/Heat CLU converter,	Pollution control Equipments	Offline pulse jet bag filter
Particulars	3.0 MVA submerged arc furnaces, 3.6 MVA submerged arc furnaces, 2 x 5.5 MVA submerged arc furnace 6.0 MVA submerged arc furnace, 12MT/Heat CLU converter,						
Pollution control Equipments	Offline pulse jet bag filter						





			designed to achieve the given norms. Emission from all stacks is well within prescribed limit.
	xviii.	Following additional arrangements to control fugitive dust shall be provided:	
		a. Fog / Mist Sprinklers at all on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.	We are not using iron ore and regarding coal, coke, fly ash and solid waste storage area we have provided sprinklers.
		b. Proper covered vehicle shall be used while transport of materials.	We are transporting materials by Tarpaulin covered mechanical trucks.
		c. Wheel washing mechanism shall be provided in entry and exit gates with complete recirculation system.	Wheel wash system is provided by us.
	xix.	Briquetting and Jigging plant shall be installed in Ferro Alloys Plant.	We have installed Briquetting and Jigging plant in our Ferro Alloys Plant.
	xx.	The PP shall minimize the evaporation losses in jigging operation to less than 10% using suitable advanced process.	Agreed and shall be followed.
	xxi.	The 4th hole extraction system shall be provided in the Sub Merged Arc Furnaces and EAF.	In our Process for production of High Carbon Ferro Alloys we are using semi-closed hood system hence the CO gas generated and unused in the furnace are burn to CO <sub>2</sub> above the charge level when it gets in contact with atmospheric air as such provision of fourth hole in the furnace is never operated. The fourth hole extraction system is provided in SAFs process.
	xxii.	Industry is going to use silica quartz in large quantities and going to produce Silico Manganese and Ferro Silicon alloy steel. Therefore, it is necessary to control silica/quartz exposures at production Departments, not only emission norms as per Indian Factories Act. The permissible limit for silica/quartz should be within 10 mg/m <sup>3</sup> for total dust as per Indian Factories Act. Therefore, it is recommended to monitor personal and area exposures for silica quartz dust in the process plants.	Agreed and shall be followed. If any Ferro Silicon is produced then permissible limit of Silica/Quartz shall be maintained and also emission will be monitored. We would like to inform you that for this period we have not manufactured any Ferro Silicon.
	xxiii.	During operational phase at Captive Power Plant, Action Plan to monitor coke/coal dust exposures in different process plants using personal and area air samplers and to compare with permissible limits as per Indian Factories	Agreed and is being followed. We are monitoring coal dust exposures by appropriate air sampler as per Indian Factories Act, 1948. Air sampler report is attached as <b>Annexure-IV</b>





		Act, 1948 shall be implemented.	
	xxiv.	The coal dust should be monitored at coal unloading, crushing, furnace areas and should be within 2 mg/m <sup>3</sup> , respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.	Agreed we are monitoring at coal handling system.
	xxv.	The industry should estimate the total dust emitted from the stacks in tonnes/month and submit this to IRO MoEFCC, once in six months.	Agreed and shall be followed. Generation of dust from stacks is 9.33 Tonnes /Month.
	xxvi.	The PP to install CO sensors with alarm system, at strategic locations inside the Plant.	Agreed and shall be followed.
III	<b>Water quality monitoring and preservation :</b>		
	i.	The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Agreed and shall be followed. Zero discharge is always maintained in our Plant. The treated water from siltation tank is utilized for Dust suppression, Water Sprinkling & Ash Conditioning. Wastewater Analysis Report is attached as <b>Annexure-VIII</b> . Zero liquid discharge (ZLD) along with PTZ Cameras are installed and connected to CECB and CPCB servers. Calibration of equipment is also being done through NABL accredited labs.
	ii.	The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/ sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.	Agreed and is being followed. Ground water report for pre- monsoon is attached as <b>Annexure-IX</b>
	iii.	Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.	Agreed. Drains and collection pits are provided in factory to collect rush of water during rains. Recharge pond is also constructed for storage of rain water.
	iv.	Water meters shall be provided at the inlet to all unit processes in the plants.	Agreed and being followed. We have provided water meters at all the inlets of unit processes.
	v.	The project proponent shall make efforts to minimize water consumption in the plant complex by segregation of used water, practicing cascade use and by recycling treated water.	Agreed and being followed. We are collecting waste water from various processes in settling tank and reutilizing it in Jigging, ash conditioning and slag cooling.







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	vi.	The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. Suitable measures shall be adopted for sewage water handling to ensure no contamination of any kind of water body.	Agreed and being followed. Effluent treatment scheme is attached as <b>Annex.-X</b> . We have also installed Sewage Treatment plant for treatment of Domestic Effluent. As per our knowledge there is no contamination of water in any water body.
	vii.	All stockyards shall have impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains and catch pits to trap the run off material and shall be implemented as per the action plan submitted in EIA/EMP report.	All raw materials is being stored on impervious floors. Garland drains with settling tank are provided around storage yards to trap the run off / spillage of materials and dust suppression is controlled by installation of mist canon system and mobile and static water sprinklers in the yard.
	viii.	Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.	Agreed and being followed. We have enhanced Rain water harvesting for rain water harvesting purposes. Photographs of Rain water harvesting pits are enclosed as <b>Annex.-XI</b> .
	ix.	Air Cooled condensers shall be used in the captive power plant.	Air cooled Condenser is provided in the Captive Power Plant.

<b>IV.</b>	<b>Noise monitoring and prevention :</b>		
	i.	Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and amendments thereof, and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.	Noise monitoring reports are attached as <b>Annex-XII</b>
	ii.	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.	Agreed and is being followed. Noise Monitoring Report is attached as <b>Annex.-XII</b> .
	iii.	PP shall identify extreme hot areas through heat stress survey as well as noise monitoring within process plants to ensure that workers not exposed above 90 dBA levels as per Factories Act, 1948.	We would like to inform you that there are no extreme hot areas. Monthly Noise monitoring is carried out to ensure that workers not exposed above 90 dBA levels as per Factories Act, 1948.

<b>V.</b>	<b>Energy Conservation Measures :</b>	
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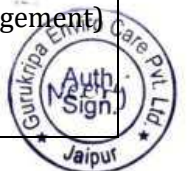


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i.	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.	We have provided Solar generation system of 100 KW in our plant area.
ii.	Provide LED lights in their offices and residential areas.	LED lights are provided in offices. Also there is no residential area in plant premises.

<b>VI.</b>	<b>Waste Management :</b>	
i.	Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil.	We would like to inform you that there are no oil cellars in our plant.
ii.	Kitchen waste shall be composted or converted to biogas for further use.	We would like to inform you that very small quantity of kitchen waste is generated, hence conversion in biogas is not feasible due to small quantity. Hence it is composted.
iii.	100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.	We are providing all the fly ash generated to bricks manufacturers. Also Fly ash audit is conducted by National Institute of technology Uttarakhand, Copy of report along with Latest MOU is attached as <b>Annex.-XIII</b>
iv.	The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <a href="https://cpcb.nic.in/technical-guidelines-3/">https://cpcb.nic.in/technical-guidelines-3/</a> . All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.	There is no generation/use of Single use plastic in our plant area.
v.	A proper action plan must be implemented to dispose of the electronic waste generated in the industry.	We are following E waste (Management) Rules 2016 for disposal of E waste.





vi.	Solid waste utilization	
	a. PP shall install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.	We have installed slag crusher.
	b. PP shall recycle/reuse solid waste generated in the plant as far as possible.	Recycle/reuse of solid waste is done by us in followings ways:-  1.FeMn and SiMn slag- It is used in manufacturing of Si-Mn, and presently sold to market. 2.Bag Filter Dust- Recycling/Reuse in the Manufacturing process after briquetting. 3. Mn3O4 Dust from Thermit Process- Recycling/Reuse in the Manufacturing process. 4. Fly Ash- Brick/Block/Other products manufacturing 5. Alumino thermic Slag- Being Sold in the market as it is used as synthetic slag for steel making. 6. CLU Slag- It is High MnO Slag used in manufacturing of Si-Mn, presently sold to market.
	c. Used refractories shall be recycled as far as possible.	Agreed and being followed.

<b>VII.</b>	<b>Green Belt /Decarbonization programme :</b>	
i.	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.	We have submitted GHG report along with EIA Report.Report is attached as <b>Annex.-I.</b>
ii.	Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage and offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.	Agreed and already submitted and will be followed as per Decarbonization report. Report is enclosed as <b>Annexure-I</b>







iii.	The Project proponent shall prepare a road map to achieve the carbon neutrality consistent with India's commitment to achieve carbon neutrality by 2070, with periodic targets (every five years).	Carbon neutrality shall be contemplated by accounting for various measures existing and planned e.g., the generation of renewable energy/ energy efficiency activities. Further reduction of carbon emission through adopting latest available technology and implemented thereof.
iv.	Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.	Paving and Greenbelt is already developed.

<b>VIII.</b>	<b>Public hearing and Human health issues :</b>	
i.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	We have implemented Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan as per our Onsite Emergency plan submitted in office of Industrial, Health and Safety .Copy of HIRA is attached as <b>Annex-XIV</b>
ii.	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.	We are providing Personal Protection equipment (PPE) like gloves, apron, helmet, face shields, safety shoes etc to workmen working in high temperature work zone. Safety related Mock drills are conducted timely and also safety training is given to the workers and employees. Photographs are attached as <b>Annexure-XV</b> .
iii.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobileSTP. Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	There is no major construction activities during this period. Only minor repairs and maintenance work is done by already employed workers. No labour is residing in our plant premises, however we are providing drinking water, medical healthcare, healthy environment etc to our shift workers.
iv.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained.	We are regularly doing Occupational health surveillance of workers and employees. Photographs of the Medical checkup camp along with Copy of sample report is attached as <b>Annex.-XVI</b>



<b>IX.</b>	<b>Environment Management :</b>	
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i.	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.	Agreed and Implemented. We have spend Approx. Rs 13,06,800.00 for development of Public Bathroom and Toilets at Village Achholi Ward No.-08,Nagar Nigam Birgaon Raipur (C.G).Photograph is enclosed as <b>Annex.-III.</b>
ii.	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/ deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.	Agreed and being followed. We have a well laid down environmental policy duly approved by the Board of Directors. Copy of environment policy along with Board resolution is enclosed as <b>Annex.-XVII</b>
iii	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.	We have a separate Environmental cell reporting to the Head of the organization directly. Copy is enclosed as <b>Annexure-XVIII.</b>
iv	Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Integrated Regional Office of the MoEF&CC.	Agreed and being followed. We are doing performance evaluation test of all the Bag Filters for efficiency monitoring. Last year Reports are attached as <b>Annexure-VII.</b> Report for this year shall be submitted in next six monthly compliance report.





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X. Miscellaneous :		
i.	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	Agreed and complied. We have published information regarding grant of Environment clearance in two local newspapers in Hindi and English. Copy is enclosed as <b>Annexure-XIX</b> . Information for grant of Environment clearance shall be displayed along with six monthly compliance report permanently in the website of the company.
ii.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	Agreed . We have already submitted copies of Environment Clearance to Head of the Nagar Nigam, Birgaon. Copy of receipt letter is enclosed as <b>Annexure-XX</b> .
iii.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	Yes we are uploading compliance report on half yearly basis.
iv.	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	We are continuously monitoring the criteria Pollutant level namely PM10,SO2,NOx (Ambient levels and Stack emission) through display board at the Main Gate and also critical sectoral parameters indicated for the project has been displayed at the Main Gate and also uploaded at the website of the company.
v.	Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be implemented.	Agreed and implemented. We have already constructed concrete roads with I.R.C specification.
vi.	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.	We are regularly submitting the Status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
vii.	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	We are regularly submitting environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986. Last submitted report is enclosed as <b>Annex.-XXI</b> .
viii.	The project proponent shall inform the Regional Office as well as the Ministry, the	The date of financial closure is 31.03.2024 and final approval of Chhattisgarh





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		date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.	Environment Conservation Board for Consent to Operate granted vide letter No. 10518/TS/CECB/2024 Nava Raipur Atal Nagar, Dated 28 /03/ 2024 is attached as <b>Annex.- XXII.</b>
	ix.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	We are abiding by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
	x.	The recommendations of the approved Site-Specific Wildlife Management Plan (in case of involvement of Schedule-I species) shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.	Not applicable.
	xi.	The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.	Agreed and shall be followed.
	xii.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	Agreed.
	xiii.	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Accepted
	xiv.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Agreed.
	xv.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Agreed. 
	xvi.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should	Agreed we are extending full cooperation to Regional office authority and furnishing required datas.



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		extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/information/monitoring reports.	
	xvii.	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	There is no appeal against this EC at N.G.T. within 30 days.



*GHG Inventory Report:Hira Power and Steels Limited (FY:2021-22)*

# **Annual Greenhouse Gas Inventory Report 2021-22**

Submitted By

***Hira Power and Steels Limited,Unit-II***



Prepared By

**Dr. Sumant Kumar Samal**  
Scientist  
Head, Research & Development



**Hira Power and Steels Limited, Unit-II**  
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## Synopsis:

A GHG Inventory Report refers to the volume of greenhouse gases released into the atmosphere as generated in an industry. Hira Power & Steels Limited (HPSL), a leading player in the steel segment in Central India aims to lower the impact of GHG on the environment over the long term. For the present case study, the Kyoto protocol gases are identified and considered. The report endeavors to the procedures and or methodologies for the GHG Inventory management, emission cut-off, and searching the utmost technique and subsequent implementation for achieving the projected emission reduction. The report also describes the methodology for the collection of real-time data, setting up the criteria for the quality assessment of the data being collected and or processed, and also simultaneous review for gradual improvement.

The GHG emissions are subcategorized into two types based on emission source, i.e., direct emissions (Scope-1) and indirect emissions (Scope-2).

- A. **Scope-1:** Direct emissions originated from the sources which are possessed and/or controlled by the HPSL.
- B. **Scope-2:** Indirect emissions are mainly due to the use of electricity procured from the other private/government grid.

## Emission Inventory Summary

An overview of the carbon footprint by emission scopes of HPSL for the respective years is given in **Table 1**. The key performance indicators (KPI) implemented by HPSL refer to the emissions generated (Scope 1 and Scope 2) per MT of raw materials being processed.

**Table 1** Emission Inventory Summary

<b>Emission Breakdown:</b>	<b>Financial Year (2021-22)</b>
Scope-1 (tCO <sub>2</sub> )	<b>164,094.04</b>
Scope-2 (tCO <sub>2</sub> )	NIL
Emissions avoided/sequestered (tCO <sub>2</sub> )	46.72
<b>Total Emissions (tCO<sub>2</sub>)</b>	<b>164047.32</b>

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## **Abbreviations**

AFBC	Atmospheric Fluidized Bed Combustion
CCS	CLU Converter Shop
CPP	Captive Power Plant
CSPTCL	Chhatisgarh State Power Transmission Company Limited
EF	Emission Factor
FAD	Ferroalloys Division
FY	Financial Year
GHG	Greenhouse Gas
HPSL	Hira Power and Steels Limited
IPCC	Intergovernmental Panel on Climate Change
IR	Industrial Revolution
KPI	Key Performance Indicator
MOEFCC	Ministry of Environment, Forest, and Climate Control
SAF	Submerged Arc Furnace
UOM	Unit of Measurement
WBCSD	World Business Council for Sustainable Development
WRI	World Resource Institute

## **1. Introduction**

### **1.1 Background**

Hira Power & Steels Limited (HPSL) is a leading player in the steel segment in Central India; a major constituent of HIRA Group of Industries, Raipur, Chhattisgarh. The company's main business interests are in Ferroalloys, Power and Mining, and it has its production units in Raipur, Chhattisgarh, India; an area known for low-cost production of Steel due to the easy availability of raw materials, cheap labour, and supportive Government policies.

The company has been fulfilling the demands of Ferroalloys viz. bulk and refined to the major public and private industries covering almost 350 major industries as key clientele across the globe. The organization was established under the flagship of Mr. **Om Agarwal** (Chief Managing Director) and is backed by professionally qualified team members under the stewardship of the Board of Directors having expertise in Engineering, finance, and administration.

Currently, the company is having total furnace capacity of 23.6 MVA, a Captive Power Plant of 20 MW (with Coal linkage), and mines located in Madhya Pradesh. HPSL has also acquired seven prospecting rights for Manganese Ore in South Africa. Three of the Seven Rights are located in close proximity to the world-famous Kalahari Manganese basin. HPSL dominates the refined ferromanganese (low and medium carbon grades) segment not only in India but also globally, which is an essential component in steel making. HPSL is the first industry to adopt a CLU Converter unit for the ferromanganese refining process in India which led to the aforementioned achievement.

Having cutting-edge technologies, ensuring operational excellence across functional areas, harnessing energy responsibility, and helping to enhance the lives of billions of people throughout the world, HPSL sees itself as a responsible public organization.

Moreover, rigorous in-house R&D activity and collaborative research are HPSL's prime focus to sustain and thrive in IR 4.0.



## **1.2 Vision, sustainability Policy, Startergies and Programmes**

To use cutting-edge technologies and ground-breaking research to develop new-era renewable energy solutions that promote in nation's growth and development by upholding strict ethical standards for business practices and building never-ending connections with clients.

- a) Quality: Strong belief and commitment to delivering.
- b) Customer Satisfaction: Quality can never be compromised in any regard.
- c) Integrity and ethics: Two sides of the Coin called "Business".
- d) To strive towards employee growth and satisfaction
- e) To take good care of the community and the environment.

### **1.2.1 Sustainability Policy**

To maintain a comprehensive business, HPSSL's sustainability and CSR vision is to conduct all of its operations in such a way that is effective, safe, and ethical, minimizing any detrimental effects on the environment and enhancing community livelihood quality.

### **1.2.2 Sustainability Goals**

The major organizational ethics for achieving sustainability goals are as follows.

- i. Incorporate environmental and social considerations into business decisions.
- ii. Ensure a safe and healthy working environment.
- iii. Conduct business with ethics and transparency.
- iv. Adhere to responsible business practices.
- v. Gain the trust of stakeholders and establish a reputation as a responsible corporate citizen.

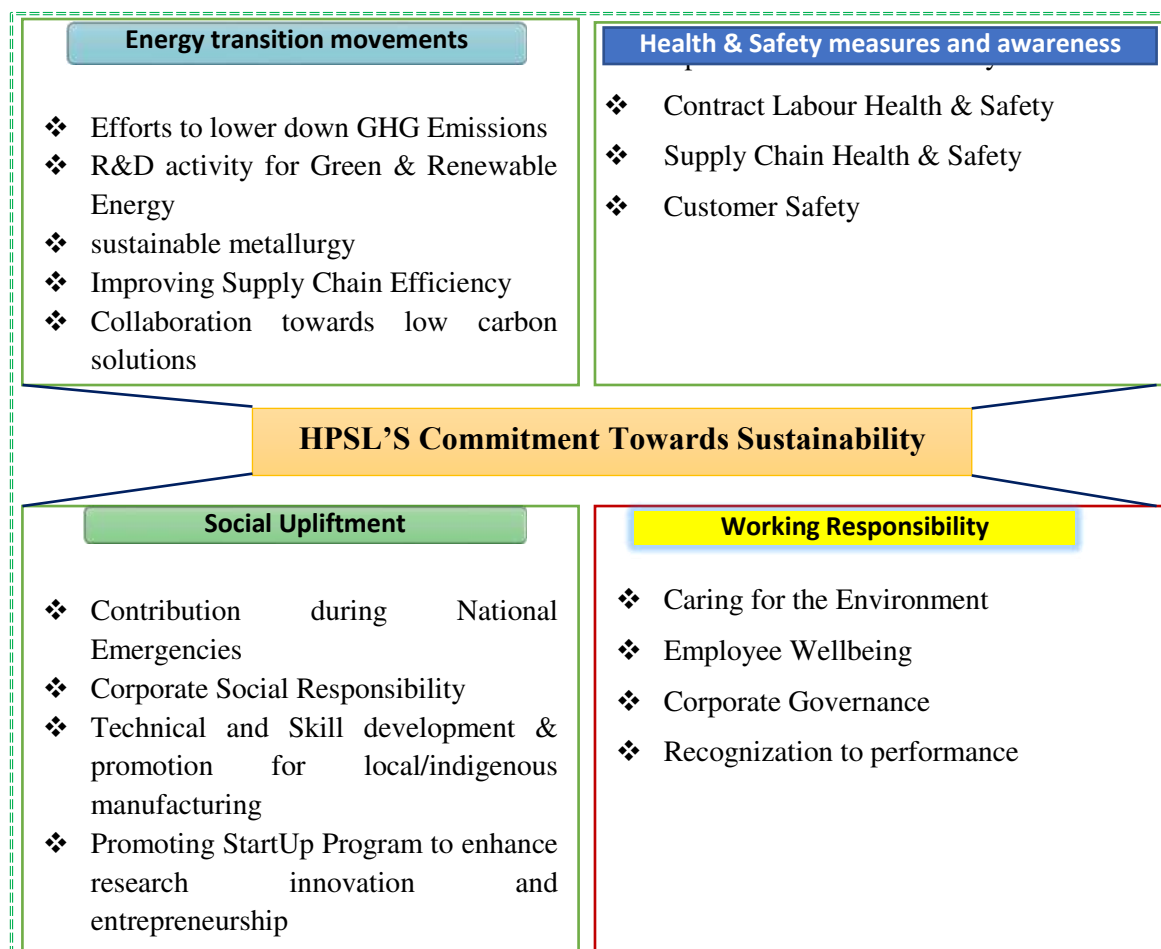
### **1.2.3 Thrust areas**

- A. Efficiency and effectiveness in both operations and processes
- B. The non-toxic and healthy atmospheric environment in the workplaces and nearby
- C. Essential requirements for a livelihood as well as societal empowerment
  - i. Providing hygienic drinking water and safeguarding water resources.
  - ii. Providing and spreading awareness for healthcare and sanitation
  - iii. Enhancing educational, technical, and vocational skills.

- iv. Women empowerment
  - v. Identification and empowerment of socially and or economically backward groups.
  - vi. Short term training programs
- D. Environmentally sustainable practices within & beyond the organization's premises
- i. Clean and green energy options.
  - ii. Rainwater harvesting (at co.-owned premises, retail outlets).
  - iii. Lowering GHG emission.
  - iv. Reduce, reuse, recycle, and dispose of waste streams safely and ecologically.
  - v. Value addition to process waste
  - vi. Renewable energy
  - vii. Energy storage

#### 1.2.4 Sustainability at Hira Power & Steels Limited

The various aspects of HPSL's commitments towards sustainability is shown in **Figure 1**.



**Figure 1** Various aspects of commitments towards sustainability

Dedicated to operational excellence, quality consciousness, and transparency, HPSL is a large corporation with high-caliber professionals, cutting-edge technologies, and a strong Research & Development wing. Here, the product in all of its forms is harnessed in the most responsible manner and provided to customers at the most competent values.

### **1.3 Energy Scenario in the assessment year**

Based on generation source, energy can be classified into two different types, primary energy, and secondary energy.

#### **I. Primary Energy:**

Primary Energy source involves natural resources like coal, diesel, LPG, etc. The coal is used as a fuel in the AFBC boiler as well as a reductant and heat source in Submerged Arc Furnaces. Diesel consumption is mainly in company-owned vehicles.

HPSL is having one steam turbine-driven TG Set of 20 MW capacity and one AFBC boiler. The fuel used in the AFBC boiler is coal, coal fines, and rice husk.

#### **II. Secondary Energy**

The secondary energy source is basically electrical energy which maybe self-generated or purchased from Power Company.

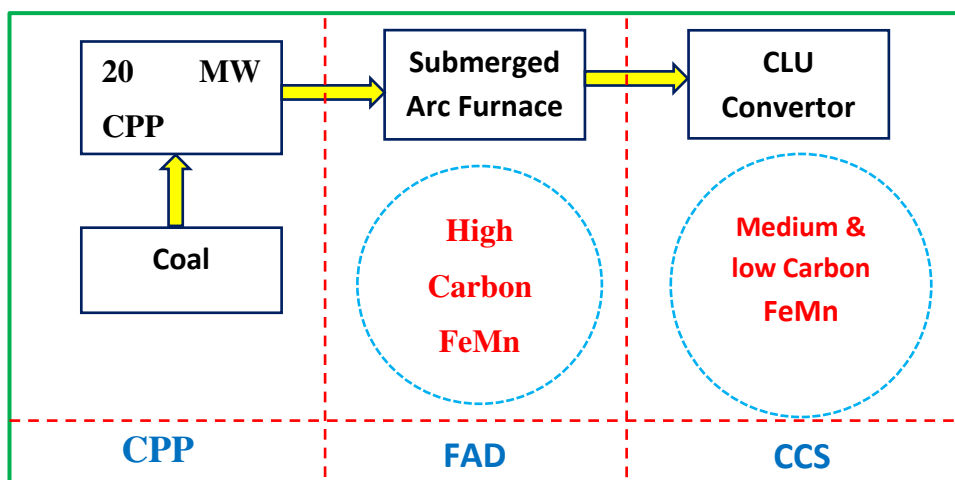
From, November 2022, the electricity is being purchased from State electricity Board; the scope-2 emission related to this secondary energy is not considered for preparing the current GHG inventory report.

### **1.4 Plant Structure**

Hira Power and Steels Limited operational plant layout is shown in **Figure 2**. There are three primary functional units in HPSL which are as followings.

- i. **CPP** : Captive power plant for power generation
- ii. **FAD** : Ferroalloys division for production of high carbon ferroalloys
- iii. **CCS** : CLU converter shop for refining (Decarburization) of ferroalloys





**Figure 2** Plant Layout of HPSL

### 1.5 Group Accountable for GHG Inventory

The GHG inventory is the ultimate vision towards sustainability by the strong determination of senior management; the present study is conducted as per the mandate given by the Ministry of Environment, Forest and Climate Change (MOEFCC). The provided GHG Inventory and Report is prepared for HPSL with ample support from concerned departments across all operating and functional areas. The details of personnel involved for GHG Inventory report preparation is given in **Table 2**.

**Table 2** HPSL GSG Assessment Team description

Sl. No.	Initials	Last Name	First name	Designation	Organization
1.	Er.	Tiwari	Aviral	Deputy Manager-EHS	HPSL
2.	Er.	Shukla	Amarkant	Asst. Manager-EHS	HPSL
3.	Er.	Verma	Nukesh	AGM-CPP/CCS	HPSL

### 1.6 Reporting Period and Frequency

The reporting period for this Carbon Footprint report is from 1<sup>st</sup> April 2021 to 31<sup>st</sup> March 2022. This GHG report covers the financial year 2021-22. The GHG report is being calculated and reported annually.

## **1.7 Reporting Standards, Approach, and Verification**

The GHG report for the financial year 2021-22 is prepared in accordance with the following standards.

- i. ISO 14064-1:2018
- ii. Greenhouse Gas Protocol (Developed by WBCSD/WRI)
- iii. Compendium of Greenhouse Gas Emission Methodologies for the Oil and Natural Gas Industry (Developed by API, 2009)
- iv. IPCC Guidelines for National Greenhouse Gas Inventories (developed by IPCC, 2006)

For reference, a reporting index has been provided at the end of the report.

## 2. Organizational and Operational Boundaries

### 2.1 Organizational Boundury

HPSL has complete operational control over a source of emissions; HPSL has accounted for 100% of the scope- 1 emissions and excluded scope-2 emissions. Using this operational control approach, this GHG Inventory Report includes emissions from the following operational unit as indicated in **Table 3**.

**Table 3** Details of HPSL's Operational Unit

Facility Name	Facility Address
Hira Power and Steels Limited	511/1,512/2 Urla Industrial Complex Urla, Raipur, Chattisgarh 492003

### 2.2 Operational boundury

As per GHG protocol, the Sources of emission for the operational boundaries have been categorized into Scopes 1 & 2 as followings.

#### 2.2.1 Scope-1: Direct Emissions

These are onsite emissions; owned and controlled by HPSL which includes the following.

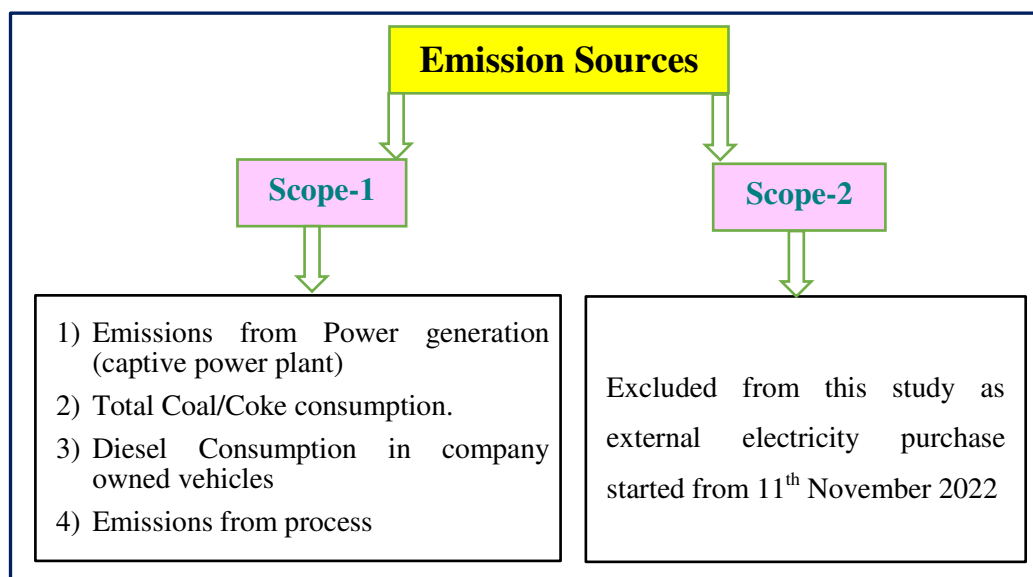
- i. Stationary Combustion – at Process Units
- ii. Stationary Combustion – at Captive Power Plant
- iii. Mobile Combustion – Operational Vehicles
- iv. Fire Extinguisher Refilling

#### 2.2.2 Scope-2: Indirect Emissions

These mainly include electricity consumption as procured from external sources. Since purchased electric consumption from CSPTCL started on 11<sup>th</sup> November 2022, the emissions due to purchased electric consumption are excluded.

The current GHG Inventory is the First report compiled by Hira Power and Steels Limited; it includes the scope-1 emissions only.





**Figure 3** GHG Emission Sources

## 2.3 Greenhouse Gas Selection

Six greenhouse gases have been identified to be reduced significantly under the Kyoto Protocol based on their considerable estimated volume in the atmosphere as a result of anthropogenic activity. Countries that ratified the Protocol have committed to reducing the basket-of-seven greenhouse gases, which are as follows.

- i. Carbon dioxide (CO<sub>2</sub>)
- ii. Methane (CH<sub>4</sub>)
- iii. Nitrous oxide (N<sub>2</sub>O)
- iv. Hydrofluorocarbons (HFCs)
- v. Perfluorocarbons (PFCs)
- vi. Sulphur hexafluoride (SF<sub>6</sub>)

This report accounts for GHGs considered under the Kyoto Protocol, and the following Non-Kyoto GHG: Hydrofluorocarbons (HFCs) and CFC use in refrigeration. In this document, the results are presented in tCO<sub>2</sub>e which represents all the greenhouse gases.

## 2.4 GHG Emission Exclusions

The context of the inventory, and/or are not feasible or practical to calculate at the current point in time.

- Indirect emission from the product used by an organization.
- Indirect GHG emissions associated with the use of products from the organization.
- Indirect GHG emissions from transportation (HPSL-owned vehicles used in the transportation are in this study)
- Indirect GHG emissions from other sources are not considered in this first GHG study as it would have required tremendous data compilation through various departments and the overall impact of exclusions would not be more than 0.5%.
- The indirect emissions will be included in the forthcoming GHG reports.
- Emissions that do not figure highly ( $< 0.5\%$ ) in relation to total emissions.
- Company travel and transport of machinery by plane, train, ship, and subcontracted transport in general, since it forms part of scope 3 (excluded in this study).

### **3. Quantification Methodology**

#### **3.1 GHG Calculation Methodology**

HPSL determines its GHG emissions using a calculation approach, multiplying the activity data compiled with the documented GHG emission factors latest available at the time of report preparation. The scope-wise categorization of each GHG emission source, data used, and emission factors are tabulated in sections 2.2, 3.4, and 3.5 respectively.

#### **3.2 Base Year**

A base year allows for like-to-like comparisons over time and allows tracking progress to a given target. The base year of HPSL for the purposes of reporting Greenhouse Gas Emissions is considered FY 2021-22.

- i. The base year reasonably takes care of fluctuations in the typical yearly performance of the organization
- ii. It is the first time that the HPSL is able to account for all the details intending to calculate the GHG emissions.

The base year GHG Inventory would be compared with the FY 2022-23 in order to check the redundancy of the base year GHG calculations as well as for seeking an understanding of the GHG information management process.

#### **3.3 Changes to base year**

Recalculation of the base year may apply wherever it is necessary to maintain an effective base year comparison. Reasons for this might include:

- i. Significant changes related to the expansion of the project
- ii. Structural changes such as mergers and divestments
- iii. A significant estimation method has been changed/improved.
- iv. Significant data sourcing strategy has been changed/improved.
- v. Change in Scope of the inventory (for instance the purchase of a new business).

There is no change to the base year calculation in this reporting period

### 3.4 Data used

The data used for the preparation of this report has been monitored by HPSL recorded in the soft format/hard copies. HPSL follows stringent Data management practices, and the recorded data and performances are reported to the Ministry of Petroleum and Natural Gas, Government of India at regular intervals. Also, the monitored data is examined numerous times to maintain the accuracy. All the activity data used for GHG calculation are given below in **Table 4**.

**Table 4** Data used for GHG calculation

Scope	GHG Sources	Particular/Fuel Used	Unit
Scope-1	Stationary combustion - at Furnace (SAF)	Coal/Coke, Carbonate type Manganese ore, Raw Dolomite, Carbon paste,	MT
	Stationary combustion - at Captive Power Plant	Coal	MT
	Stationary Decarburization - at CLU Converter	Decarburization	Ton
	Fire Extinguisher usage	Fire Extinguisher	Ton
	Mobile Combustion - Operational Vehicles	Diesel	Km
Scope-2	<b>Excluded</b> , since purchasing external electricity started in 11 <sup>th</sup> November 2022	Electricity Consumption	MWh

### 3.5 Approach to emission factors

The Emission Factor (EF) values associated with the respective sources used in the GHG Inventory are indicated in **Table 5**.

**Table 5** GHG emissions factors

Scope	Category	Emission Factor	Unit	Source
1	Diesel Consumption	2.69	KgCO <sub>2</sub> /lit	2006 IPCC Guidelines for National Greenhouse Gas Inventories
1	CO <sub>2</sub> refill in Fes	0.001	tCO <sub>2</sub> /MT	
1	Mill Scale	0.037	tCO <sub>2</sub> /MT	World Steel Association
1	Limestone/Dolomite	0.44	tCO <sub>2</sub> /MT	
1	Carbonate type Manganese Ore	0.22	tCO <sub>2</sub> /MT	
1	Coal Consumption	0.92	tCO <sub>2</sub> /MT	
1	Carbon Paste	3.12	tCO <sub>2</sub> /MT	
1	Decarburization	Variable as per grade	tCO <sub>2</sub> /MT	
2	Electricity consumed from State Grid	Excluded	tCO <sub>2</sub> /MWh	Central Electricity Authority



HPSL has referred to globally accepted emission factors from international, scientific/Government bodies available at the time of inventory preparation. The HPSL attempted all possible efforts to use the best available emissions factors available at the reporting time and has cited the source of all emission factors used.

### **3.6 Asset addition and divestment**

During the reported time, there were several units were commissioned and none of the assets/units were divested. Hira Power and Steels Limited Improvement Practices.

The motto of Hira Power and Steels Limited is "In harmony with nature"; hence committed to protecting and preserving the environment for a better future for our generations.

## 4. Avoided Emissions

This section sets out a quantification of the avoided Greenhouse Gas emissions in operational boundaries due to the implementation of environmental good practices on site. There are various GHG removal practices that HPSL implemented on the ground level to minimize GHG emissions. The quantified GHG removals are deducted from the electricity generation from Captive Power Plant and other scope-1 included sources.

HPSL has planted many trees on 18.65 acres (or 7.46 hectares approximately). Based on the conservative estimation, the plantation initiative by HPSL has sequestered several tones of CO<sub>2</sub> approx. 46.72 tCO<sub>2</sub>.

### 4.1 GHG emission summary

The annual GHG emissions from all the sources during the FY 2021-22 were 1,64,094.04 tCO<sub>2</sub>e from all the sources.

### 4.2 Emission by scope

The total emissions categorized by scopes are given in **Table 6**.

**Table 6** Emissions by Scopes

Scope	Unit	2021-2022
Scope 1	tCO <sub>2</sub> e	<b>1,64,094.04</b>
Scope 2	tCO <sub>2</sub> e	NA
Total Emissions avoided/sequestered	tCO <sub>2</sub> e	46.72
Total Gross Emissions	tCO <sub>2</sub> e	164047.32

### 4.3 Breakdown of GHG emissions

The quantitative emissions from respective emissions sources are indicated in

**Table 7** under Scopes-1 and 2 categories.

**Table 7** Emissions by sources

<b>SCOPE-1:</b>					
Category	Quantity	UoM	Emission Factor	UoM	TCO2
<b>1. General</b>					
Diesel Consumption	10,800	Lit.	2.69	kgCO <sub>2</sub> /lit.	29,052
CO <sub>2</sub> refill in FEs	58.5	kg	0.001	tCO <sub>2</sub> /MT	0.06
<b>2. CPP</b>					
Coal	189,784.61	MT	0.92	tCO <sub>2</sub> /MT	
<b>4. FAD (Ferroalloys Division)</b>					
Carbonate Type Mn Ore	88,000	MT	0.22	tCO <sub>2</sub> /MT	19,360
Total "C" Consumed	27,994	MT	3.67	tCO <sub>2</sub> /MT	1,02,737.98
Carbon Paste	1200	MT	3.12	tCO <sub>2</sub> /MT	3,744
Raw Dolomite	4000	MT	0.44	tCO <sub>2</sub> /MT	1760
<b>3. CCS (CLU Converter Shop)</b>					
Decarburization to 0.5%C	8,000	MT	0.26	tCO <sub>2</sub> /MT	2,080
Decarburization to 1.0%C	4,000	MT	0.24	tCO <sub>2</sub> /MT	960
Decarburization to 1.5%C	20,000	MT	0.22	tCO <sub>2</sub> /MT	4,400
Total Scope 1 Emissions (tCO <sub>2</sub> e)					<b>164,094.04</b>
<b>SCOPE-2:</b>					
Electricity consumed from State Grid	Excluded	kWh	NA	tCO <sub>2</sub> /MWh	Nil
Total Scope 2 Emissions (tCO <sub>2</sub> e)					<b>Nil</b>

## **5. Data Quality Management**

### **5.1 Data management procedure**

HPSL has developed and maintained a GHG information process that ensures conformance with the principles of ISO 14064-1 and the GHG protocol; ensures consistency with the intended use of the GHG inventory; provides a routine and consistent check to ensure completeness and accuracy; identifies and address errors and omissions; and manage and store documentations in a safe and accessible manner.

HPSL maintains a qualitative and quantitative assessment of data quality throughout the entire GHG Inventory management system. This includes activity data, data allocation, estimates and recalculations, and also the emission factors used. Data quality is evaluated on the basis of completeness, as well as on its sequential, geographical, and technological accuracy.

### **5.2 Emergency procedure**

An emergency procedure is related to data collection issues with respect to metering failure or human error. Procedures should be applied, in line with ISO 14001 requirements to eliminate or reduce the risk of data loss/ incomplete data collection.

### **5.3 GHG information management procedure**

1. Literature review and collection of GHG emission factors from the GHG protocol and other relevant public sources.
2. Calculation of GHG emissions by multiplying the activity data with emission factors/ global warming potentials as may be applicable; cumulative GHG emissions indicate the inclusion of scope-1 and scope-2.
3. Carbon neutrality shall be contemplated by accounting for various measures existing and planned e.g., the purchase of renewable energy/ energy efficiency activities. Further reduction of carbon emission through reducing fuel consumption shall be contemplated with all relevant HODs and implemented thereof.



4. All relevant departments are instructed to provide the consumption data on a weekly/monthly basis; subsequent data authentication will be carried out by senior management at a fixed interval for accuracy.

## 5.4 Assessment of uncertainty

With regard to GHG Emissions Inventory, quality refers to the general accuracy and consistency between an organization's actual emissions and quantified emissions. The difference between actual and quantified emissions results from uncertainty and error introduced by activities such as data collection, data management, calculations, and reporting. The uncertainty can be termed as followings.

- i. **Low (L):** Activity data measured directly using calibrated and maintained meters as per prescribed accuracy class and hence the records maintained e.g., electricity supply. Emission factors as a result of actual monitored data or laboratory analysis.
- ii. **Medium (M):** Activity data/emission factor is derived from any other/related measured data e.g., mileage, supplier bills
- iii. **High (H):** Activity data/emission factor is derived from theoretical/estimated values combined with actual data e.g., thumb rules industry-standard assumptions

**Table 8** indicates the uncertainty analysis and materiality input (significance only) both for the emissions factor as well as the GHG activity data.

**Table 8** Uncertainty Assessment

GHG Source Stream		Uncertainty level		Materiality (Significance)
		Emission factor	Activity data	Combined
<b>Scope-1</b>	A) Fire Extinguisher	L	L	No
	B) HPSL controlled Process Emissions	L	L	No
<b>Scope-2</b>	Electricity consumption from INDIAN grid	NA	NA	NA

Efforts will be made by HPSL in future inventories in order to keep a low uncertainty level for emissions factors and GHG activity data. Considering the above, the overall uncertainty in the GHG estimation of the present study is not likely to be more than  $\pm 5\%$  and may hence be considered free from material misstatements.

## **5.5 Review and Improvement**

Primary data has been sought for all significant emissions sources. Where data is unavailable or not comparable, conservative estimation methods have been applied such that incentives lie in continually improving the ratio of primary data to estimation approaches.

In future years, we intend is to use this section to highlight improvements in our framework and process for capturing and calculating emissions figures and reducing uncertainty.

## **5.6 GHG emissions reduction stargery**

Keeping the nation's carbon neutrality movement in sight, the following programs are being reviewed and studied thoroughly and will be implanted suitably.

- i. Emphasis on the use of electricity generated from renewable energy sources.
- ii. Replacement of petroleum fuels by bio-products.
- iii. Hydrogen generation, storage, and its use in iron and steel making process.
- iv. Carbon capture technology

## **5.7 Disclaimer**

This report was prepared based on informations obtained from HPSL and observations made during the interview, to the best of HPSL's knowledge and belief, bearing in mind the agreed assessment objectives and defined scope of work.

As the assessment process is restricted by scope, time, and schedule, it is not meant to be comprehensive and all-inclusive.

The scope of work included in the execution of this assessment may not be appropriate to satisfy the needs of other users. Any use or re-use of this document is at the sole risk of said user.

## **APPENDIX 1: ISO 14064-1:2018 Reporting Index**

This report complies with the ISO 14064-1 2018 standard, the various section of the report rationalizes the standard either as a statement or in sections. The exclusion is mentioned over section 2.4.

<b>ISO REPORTING</b>	<b>SECTION IN THIS REPORT</b>
<b>Chapter 1</b> 5.1.A	<b>Chapter 2</b> 2.1 Organizational Boundry
<b>Chapter 3</b> 5.2.1	<b>Chapter 4</b> 2.2Operational Boundry
<b>Chapter 5</b> 5.2.2	<b>Chapter 6</b> 2.2Operational Boundry
<b>Chapter 7</b> 5.2.3	<b>Chapter 8</b> 2.2 Operational Boundry
<b>Chapter 9</b> 5.2.4.A	<b>Chapter 10</b> 2.2 Operational Boundry
<b>Chapter 11</b> 5.2.4.B	<b>Chapter 12</b> 2.2Operational Boundry
<b>Chapter 13</b> 5.2.4.C <sup>1</sup>	<b>Chapter 14</b> 2.2Operational Boundry
<b>Chapter 15</b> 6.1	<b>Chapter 16</b> 2.2Operational Boundry
<b>Chapter 17</b> 6.2.1	<b>Chapter 18</b> 3.4 data Used
<b>Chapter 19</b> 6.2.2	<b>Chapter 20</b> 3.4 data Used
<b>Chapter 21</b> 6.2.3	<b>Chapter 22</b> 3.1 GHG Calculation Methodology
<b>Chapter 23</b> 6.3	<b>Chapter 24</b> 3.1 GHG Calculation Methodology
<b>Chapter 25</b> 6.4.1	<b>Chapter 26</b> 3.2 Base Year
<b>Chapter 27</b> 6.4.2	<b>Chapter 28</b> 3.3 Changes to Base year
<b>Chapter 29</b> 8.1	<b>Chapter 30</b> 5.1 Data management procedure
<b>Chapter 31</b>	<b>Chapter 32</b>

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<sup>1</sup> Partially included, excluded are mentioned over the section 2.4.



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 Power And Steels Limited Unit li					
Project Address:		Urla Industrial Area					
Town:		Birgaon (m)		Block:		Dharsiwa	
District:		Raipur		State:		Chhattisgarh	
Pin Code:							
Communication Address:		Hira Power And Steels Ltd. Unit li, Urla Industrial Area, K.h. No. 511/1, 512/2, Dharsiwa, Raipur, Chhattisgarh - 492003					
Address of CGWB Regional Office :		Central Ground Water Board North Central Chhattisgarh, 2nd Floor, Lk Corporate And Logistic Park, Dhamtari Road, Nh-30, Dumartarai, Raipur, Chhattisgarh - 492015					

1. <b>NOC No.:</b>	CGWA/NOC/IND/REN/1/2024/9854	2. <b>Date of Issuance</b>	13/08/2024
3. Application No.:	21-4/1506/CT/IND/2018	4. Category: (GWRE 2023)	Critical
5. Project Status:	Existing Ground Water	6. NOC Type:	Renewal
7. <b>Valid from:</b>	10/06/2024	8. <b>Valid up to:</b>	09/06/2027

9. Ground Water Abstraction Permitted:							
Fresh Water		Saline Water		Dewatering		Total	
m <sup>3</sup> /day	m <sup>3</sup> /year	m <sup>3</sup> /day	m <sup>3</sup> /year	m <sup>3</sup> /day	m <sup>3</sup> /year	m <sup>3</sup> /day	m <sup>3</sup> /year
100.00	31820.00						

10. Details of ground water abstraction /Dewatering structures													
Total Existing No.:4							Total Proposed No.:0						
	DW	DCB	BW	TW	MP	MPu	DW	DCB	BW	TW	MP	MPu	
Abstraction Structure*	0	0	4	0	0	0	0	0	0	0	0	0	

\*DW- Dug Well; DCB-Dug-cum-Bore Well; BW-Bore Well; TW-Tube Well; MP-Mine Pit;MPu-Mine Pumps

11. Ground Water Abstraction/Restoration Charges paid (Rs.):	230880.00
12. Environment Compensation (if applicable) paid (Rs.):	0.00

13. Number of Piezometers(Observation wells) to be constructed/ monitored & Monitoring mechanism.	No. of Piezometers	Monitoring Mechanism		
		Manual	DWLR**	DWLR With Telemetry
**DWLR - Digital Water Level Recorder	1	0	1	0

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 बचाये  
SAVE WATER - SAVE LIFE



**(Compliance Conditions given overleaf)**

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

CENTRAL GROUND WATER AUTHORITY

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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](http://cgwa-noc.gov.in)

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**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](http://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<sup>3</sup>/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 effluents 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 period).
- 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 (s) 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 CPCB 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 m<sup>3</sup>/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.
- 29) 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.
- 30) This NOC is issued subject to the clearance of Expert Appraisal Committee (EAC) (if applicable).
- 31) In the self-compliance report, the PP shall submit details of Drilling Agency/ Agencies, which has/ have constructed BW(s)/ TW(s) along with undertaking to the effect that all necessary measures have been taken as per directions of Hon'ble Supreme Court provided in Annexure-VII of guidelines dated 24.09.2020 in respect of abandoned/ failed BW(s)/ TW(s)/Piezometer(s), if any. The PP is advised to engage registered drilling agency/ agencies. In the event of any mishap/ unfortunate incident due to negligence in taking measures for prevention of accident due to falling in Bore Well, both PP and concerned drilling agency shall jointly be held responsible and penal action as per extant Government rules shall be taken.

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

---

**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](http://cgwa-noc.gov.in)**

**पानी बचाये – जीवन बचाये  
SAVE WATER - SAVE LIFE**



**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/

Raipur, Dated 22/01/2021

15479

**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**

  
**Executive Engineer**  
**EXECUTIVE ENGINEER**  
**DIVISION II**  
**CSIDC LIMITED,**  
**RAIPUR**







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LAB**

15, Paricharika Nagar, Indore - 452 001 (M.P.)  
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ral2021indore@gmail.com

**An ISO 9001:2015 CERTIFIED LAB**

## TEST REPORT

Format No. RAL/F-40 A

Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla Industrial Area Raipur CG		7200005648/U102	RAL/2024/OCT/073	26/10/2024
<b>Sample Name</b>	<b>Sample ID</b>	<b>Date of Receipt</b>	<b>Condition of Sample</b>	
Ambient Air	RAL/2024/OCT/073	23/10/2024	Good	
<b>Analysis Start Date</b>	23/10/2024	<b>Analysis End Date</b>	26/10/2024	

### Details

<b>Sampling Date</b>	<b>Sampling Done By</b>	<b>Sampling Location</b>	<b>Sampling Duration</b>
21/10/2024	Reliable Analytical Lab.	1. Near CHP Area 2. Beside Silo 3. Solar Panel Area 4. Near Main Gate	24 hrs
<b>Ambient Temperature : 30°C</b>		<b>Wind Direction : from – West east</b>	
<b>Humidity : 50 %</b>		<b>Cloud Condition : Clear</b>	

### Test Details:-

S.N o.	Test Parameters	Unit	Result				Specification	Test Method
			1.	2.	3.	4.		
1.	Particulate Matter ( PM10)	µg/m <sup>3</sup>	48.36	50.12	46.14	50.36	NMT 100	IS-5182 (Part-23) 2006
2.	Fine Particulate Matter ( PM2.5)	µg/m <sup>3</sup>	20.68	23.16	20.35	23.14	NMT 60	IS-5182 (Part-24) 2019
3.	Sulphur Dioxide ( SO <sub>2</sub> )	µg/m <sup>3</sup>	19.24	16.42	18.56	20.16	NMT 80	IS-5182 (Part-2) 2001
4.	Nitrogen Dioxide ( NO <sub>2</sub> )	µg/m <sup>3</sup>	22.12	19.32	22.68	24.62	NMT 80	IS-5182 (Part-6) 2006
5.	Carbon Monoxide (CO)	mg/Nm <sup>3</sup>	BDL(D L1.15)	BDLD L1.15)	BDL(D L1.15)	BDL(D L1.15)	NMT 4	IS-5182 (Part-) 2006

### Note:

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## TEST REPORT

Format No. RAL/F-40 A

Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla Industrial Area Raipur CG	7200005648/U102	RAL/2024/NOV/035	27/11/2024
<b>Sample Name</b>	<b>Sample ID</b>	<b>Date of Receipt</b>	<b>Condition of Sample</b>
Ambient Air	RAL/2024/NOV/035	24/11/2024	Good
<b>Analysis Start Date</b>	24/11/2024	<b>Analysis End Date</b>	27/11/2024

### Details

<b>Sampling Date</b>	<b>Sampling Done By</b>	<b>Sampling Location</b>	<b>Sampling Duration</b>
22/11/2024	Reliable Analytical Lab.	1. Near CHP Area 2. Beside Silo 3. Solar Panel Area 4. Near Main Gate	24 hrs
<b>Ambient Temperature : 26°C</b>		<b>Wind Direction : from – West east</b>	
<b>Humidity : 48 %</b>		<b>Cloud Condition : Clear</b>	

### Test Details:-

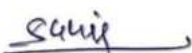
S.N o.	Test Parameters	Unit	Result				Specification	Test Method
			1.	2.	3.	4.		
1.	Particulate Matter ( PM10)	µg/m <sup>3</sup>	52.19	54.92	50.62	53.18	NMT 100	IS-5182 (Part-23) 2006
2.	Fine Particulate Matter ( PM2.5)	µg/m <sup>3</sup>	24.23	26.16	24.38	27.10	NMT 60	IS-5182 (Part-24) 2019
3.	Sulphur Dioxide ( SO <sub>2</sub> )	µg/m <sup>3</sup>	21.68	19.32	20.28	24.92	NMT 80	IS-5182 (Part-2) 2001
4.	Nitrogen Dioxide ( NO <sub>2</sub> )	µg/m <sup>3</sup>	25.92	22.82	25.94	28.89	NMT 80	IS-5182 (Part-6) 2006
5.	Carbon Monoxide (CO)	mg/Nm <sup>3</sup>	BDL(D L1.15)	BDLD L1.15)	BDL(D L1.15)	BDL(D L1.15)	NMT 4	IS-5182 (Part-) 2006

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## TEST REPORT

Format No. RAL/F-40 A

Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla Industrial Area Raipur CG	7200005648/U102	RAL/2024/DEC/0127	24/12/2024
<b>Sample Name</b>	<b>Sample ID</b>	<b>Date of Receipt</b>	<b>Condition of Sample</b>
Ambient Air	RAL/2024/DEC/0127	21/12/2024	Good
<b>Analysis Start Date</b>	21/12/2024	<b>Analysis End Date</b>	24/12/2024

### Details

<b>Sampling Date</b>	<b>Sampling Done By</b>	<b>Sampling Location</b>	<b>Sampling Duration</b>
19/12/2024	Reliable Analytical Lab.	1. Near CHP Area 2. Beside Silo 3. Solar Panel Area 4. Near Main Gate	24 hrs
<b>Ambient Temperature : 25°C</b>		<b>Wind Direction : from – West east</b>	
<b>Humidity : 45 %</b>		<b>Cloud Condition : Clear</b>	

### Test Details:-

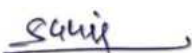
S.N o.	Test Parameters	Unit	Result				Specification	Test Method
			1.	2.	3.	4.		
1.	Particulate Matter ( PM10)	µg/m <sup>3</sup>	60.23	64.28	58.68	59.62	NMT 100	IS-5182 (Part-23) 2006
2.	Fine Particulate Matter ( PM2.5)	µg/m <sup>3</sup>	28.62	30.24	29.34	30.92	NMT 60	IS-5182 (Part-24) 2019
3.	Sulphur Dioxide ( SO <sub>2</sub> )	µg/m <sup>3</sup>	25.62	22.85	24.51	28.64	NMT 80	IS-5182 (Part-2) 2001
4.	Nitrogen Dioxide ( NO <sub>2</sub> )	µg/m <sup>3</sup>	30.62	26.86	27.28	32.64	NMT 80	IS-5182 (Part-6) 2006
5.	Carbon Monoxide (CO)	mg/Nm <sup>3</sup>	BDL(D L1.15)	BDLD L1.15)	BDL(D L1.15)	BDL(D L1.15)	NMT 4	IS-5182 (Part-) 2006

### Note:

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## TEST REPORT

Format No. RAL/F-40 A

Hira Power and Steels Ltd. Khasra No. 511/1,512/2,Urla Industrial Area Raipur CG	7200005648/U102	RAL/2025/JAN/121	29/01/2025
Sample Name	Sample ID	Date of Receipt	Condition of Sample
Ambient Air	RAL/2025/JAN/121	22/01/2025	Good
Analysis Start Date	23/01/2025	Analysis End Date	28/01/2025

### Details

Sampling Date	Sampling Done By	Sampling Location	Sampling Duration
20/01/2025	Reliable Analytical Lab.	1. Near CHP Area 2. Beside Silo 3. Solar Panel Area 4. Near Main Gate	24 hrs
Ambient Temperature : 29°C		Wind Direction : from – West east	
Humidity : 49 %		Cloud Condition : Clear	

### Test Details:-

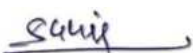
S.N o.	Test Parameters	Unit	Result				Specification	Test Method
			1.	2.	3.	4.		
1.	Particulate Matter ( PM10)	µg/m <sup>3</sup>	70.54	76.48	78.54	69.78	NMT 100	IS-5182 (Part-23) 2006
2.	Fine Particulate Matter ( PM2.5)	µg/m <sup>3</sup>	33.15	36.48	38.79	31.28	NMT 60	IS-5182 (Part-24) 2019
3.	Sulphur Dioxide ( SO <sub>2</sub> )	µg/m <sup>3</sup>	25.64	27.12	29.78	21.22	NMT 80	IS-5182 (Part-2) 2001
4.	Nitrogen Dioxide ( NO <sub>2</sub> )	µg/m <sup>3</sup>	37.87	33.48	39.39	30.45	NMT 80	IS-5182 (Part-6) 2006
5.	Carbon Monoxide (CO)	mg/Nm <sup>3</sup>	BDL(D L1.15)	BDLD L1.15)	BDL(D L1.15)	BDL(D L1.15)	NMT 4	IS-5182 (Part-) 2006

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## TEST REPORT

Format No. RAL/F-40 A

Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla Industrial Area Raipur CG		7200005648/U102	RAL/2025/FEB/117	23/02/2025
Sample Name	Sample ID		Date of Receipt	Condition of Sample
Ambient Air	RAL/2025/FEB/117		22/01/2025	Good
Analysis Start Date	20/02/2025		Analysis End Date	23/02/2025

### Details

Sampling Date	Sampling Done By	Sampling Location	Sampling Duration
18/02/2025	Reliable Analytical Lab.	1. Near CHP Area 2. Beside Silo 3. Solar Panel Area 4. Near Main Gate	24 hrs
Ambient Temperature : 31 <sup>0</sup> C		Wind Direction : from – West east	
Humidity : 55 %		Cloud Condition : Clear	

### Test Details:-

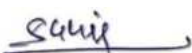
S.N o.	Test Parameters	Unit	Result				Specification	Test Method
			1.	2.	3.	4.		
1.	Particulate Matter ( PM10)	µg/m <sup>3</sup>	73.65	74.85	81.25	76.14	NMT 100	IS-5182 (Part-23) 2006
2.	Fine Particulate Matter ( PM2.5)	µg/m <sup>3</sup>	35.15	38.52	30.21	41.02	NMT 60	IS-5182 (Part-24) 2019
3.	Sulphur Dioxide ( SO <sub>2</sub> )	µg/m <sup>3</sup>	27.85	30.25	28.62	22.63	NMT 80	IS-5182 (Part-2) 2001
4.	Nitrogen Dioxide ( NO <sub>2</sub> )	µg/m <sup>3</sup>	33.63	38.15	40.52	31.89	NMT 80	IS-5182 (Part-6) 2006
5.	Carbon Monoxide (CO)	mg/Nm <sup>3</sup>	BDL(D L1.15)	BDLD L1.15)	BDL(D L1.15)	BDL(D L1.15)	NMT 4	IS-5182 (Part-) 2006

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## TEST REPORT

Format No. RAL/F-40 A

Hira Power and Steels Ltd. Khasra No. 511/1,512/2,Urla Industrial Area Raipur CG	7200005648/U102	RAL/2025/MAR/146	29/03/2025
<b>Sample Name</b>	<b>Sample ID</b>	<b>Date of Receipt</b>	<b>Condition of Sample</b>
Ambient Air	RAL/2025/MAR/146	26/03/2025	Good
<b>Analysis Start Date</b>	26/03/2025	<b>Analysis End Date</b>	29/03/2025

### Details

<b>Sampling Date</b>	<b>Sampling Done By</b>	<b>Sampling Location</b>	<b>Sampling Duration</b>
24/03/2025	Reliable Analytical Lab.	1.Near CHP Area 2. Beside Silo 3. Solar Panel Area 4. Near Main Gate	24 hrs
<b>Ambient Temperature</b> : 35°C		<b>Wind Direction</b> : from – West east	
<b>Humidity</b> : 58 %		<b>Cloud Condition</b> : Clear	

### Test Details:-

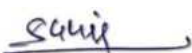
S.N o.	Test Parameters	Unit	Result				Specification	Test Method
			1.	2.	3.	4.		
1.	Particulate Matter ( PM10)	µg/m <sup>3</sup>	78.64	76.84	84.26	79.12	NMT 100	IS-5182 (Part-23) 2006
2.	Fine Particulate Matter ( PM2.5)	µg/m <sup>3</sup>	38.54	33.64	38.64	37.42	NMT 60	IS-5182 (Part-24) 2019
3.	Sulphur Dioxide ( SO <sub>2</sub> )	µg/m <sup>3</sup>	30.26	27.46	32.66	29.55	NMT 80	IS-5182 (Part-2) 2001
4.	Nitrogen Dioxide ( NO <sub>2</sub> )	µg/m <sup>3</sup>	36.94	34.82	39.64	34.58	NMT 80	IS-5182 (Part-6) 2006
5.	Carbon Monoxide (CO)	mg/Nm <sup>3</sup>	BDL(D L1.15)	BDLD L1.15)	BDL(D L1.15)	BDL(D L1.15)	NMT 4	IS-5182 (Part-) 2006

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## TEST REPORT

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2024/OCT/075	26/10/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/OCT/075	23/10/2024	Reliable Analytical Lab.	Good
Analysis Start Date		23/10/2024	Analysis End Date	26/10/2024

### Details

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
21/10/2024	3.0 & 3.6 MVA Submerged ARC Furnace A& B Combine Stack	3.0 MVA 3.6 MVA	30 min.	10:00	30. meter	1.4 Meter
Fuel Used : Electricity			Flue Gas Temperature of Stack : 72 <sup>o</sup> C			
Ambient Temperature : 30 <sup>o</sup> C			Flue Gas Velocity : 12.64M/Sec.			

### Test Details:-

S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	21.62	Max.-30	IS 11255 (P-1)1985 RA 2003

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LAB**Water & Waste Water ,  
Industrial & Environment Pollution,  
Food & Agriculture Products  
Analytical Lab**TEST REPORT**

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2 Urla, Industrial Area, Raipur CG		7200005648/U102	RAL/2024/OCT/076	26/10/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/OCT/076	23/10/2024	Reliable Analytical Lab.	Good
Analysis Start Date		23/10/2024	Analysis End Date	26/10/2024

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
21/10/2024	5.5 MVA & 5.5 MVA Submerged ARC Furnace C & D	5.5 MVA & 5.5 MVA	30 min.	10.30	35 meter	1.4 Meter
Fuel Used : Electricity			Flue Gas Temperature of Stack : 76 <sup>0</sup> C			
Ambient Temperature : 30 <sup>0</sup> C			Flue Gas Velocity : 6.38M/Sec.			

**Test Details:-**

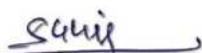
S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	19.84	Max.-30	IS 11255 (P-1)1985 RA 2003

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**RELIABLE  
ANALYTICAL  
LAB**Water & Waste Water ,  
Industrial & Environment Pollution,  
Food & Agriculture Products  
Analytical Lab**TEST REPORT**

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2024/OCT/077	26/10/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/OCT/077	23/10/2024	Reliable Analytical Lab.	Good
Analysis Start Date		23/10/2024	Analysis End Date	26/10/2024

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
21/10/2024	6 MVA Submerged ARC Furnace E"	6.0 MVA	30 min.	11:00	40 meter	2.0
Fuel Used : Electricity			Flue Gas Temperature of Stack : 79 <sup>0</sup> C			
Ambient Temperature : 30 <sup>0</sup> C			Flue Gas Velocity : 7.32M/Sec.			

**Test Details:-**

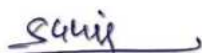
S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	19.62	Max.-30	IS 11255 (P-1)1985 RA 2003

**Note:**

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TC - 11719

**TEST REPORT**

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2 Urla Industrial Area Raipur CG		7200005648/U102	RAL/2024/OCT/078	26/10/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/OCT/078	23/10/2024	Reliable Analytical Lab.	Good
Analysis Start Date		23/10/2024	Analysis End Date	26/10/2024

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
21/10/2024	CLU Convertor and thermite and combine stack	650 KW	30 min.	11:30	35 meter	2.295
Fuel Used : Electricity			Flue Gas Temperature of Stack : 75 <sup>0</sup> C			
Ambient Temperature : 30 <sup>0</sup> C			Flue Gas Velocity : 8.26M/Sec.			

**Test Details:-**

S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	20.92	Max.-30	IS 11255 (P-1)1985 RA 2003

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Food & Agriculture Products  
Analytical Lab**TEST- REPORT**

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla, Industrial Area, Raipur CG		7200005648/U102	RAL/2024/OCT/080	26/10/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/OCT/080	23/10/2024	Reliable Analytical Lab.	Good
Analysis Start Date		23/10/2024	Analysis End Date	26/10/2024

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
21/10/2024	Captive Power Plant Stack- 20 MW	20 MW	30 min.	12:10	73 meter	2.83 Meter
Fuel Used : Electricity			Flue Gas Temperature of Stack : 77 <sup>0</sup> C			
Ambient Temperature : 30 <sup>0</sup> C			Flue Gas Velocity : 7.82M/Sec.			
Total Gas Quantity : 245248.36Nm <sup>3</sup> /hr						

**Test Details:-**

S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	24.18	Max.-50	IS 11255 (P-1)1985 RA 2003
2.	Sulphur Dioxide (Sox)	mg/Nm <sup>3</sup>	204	Max-600	IS 11255 (P-2) 1985
3.	Oxides of Nitrogen (NOx)	mg/Nm <sup>3</sup>	118	Max-300	IS 11255 (P-7) 2005
4.	Carbon Monoxide (CO)*	mg/Nm <sup>3</sup>	2.0	-----	USEPA Method No.10
5.	Hg*	mg/Nm <sup>3</sup>	N.D.	Max-0.03	AAS Method

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Food & Agriculture Products  
Analytical Lab**TEST REPORT**

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2024/NOV/037	27/11/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/NOV/037	24/11/2024	Reliable Analytical Lab.	Good
Analysis Start Date	24/11/2024	Analysis End Date	27/11/2024	

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
22/11/2024	3.0 & 3.6 MVA Submerged ARC Furnace A& B Combine Stack	3.0 MVA 3.6 MVA	30 min.	11:00	30. meter	1.4 Meter
Fuel Used : Electricity			Flue Gas Temperature of Stack : 84 <sup>o</sup> C			
Ambient Temperature : 26 <sup>o</sup> C			Flue Gas Velocity : 10.92M/Sec.			

**Test Details:-**

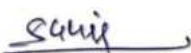
S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	24.88	Max.-30	IS 11255 (P-1)1985 RA 2003

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## TEST REPORT

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2 Urla, Industrial Area, Raipur CG		7200005648/U102	RAL/2024/NOV/038	26/10/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/NOV/038	24/11/2024	Reliable Analytical Lab.	Good
Analysis Start Date		24/11/2024	Analysis End Date	27/11/2024

### Details

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
22/11/2024	5.5 MVA & 5.5 MVA Submerged ARC Furnace C & D	5.5 MVA & 5.5 MVA	30 min.	11.30	35 meter	1.4 Meter
Fuel Used : Electricity			Flue Gas Temperature of Stack : 82° C			
Ambient Temperature : 26° C			Flue Gas Velocity : 6.94M/Sec.			

### Test Details:-

S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	22.34	Max.-30	IS 11255 (P-1)1985 RA 2003

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*Sanjay*  
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## TEST REPORT

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2024/NOV/039	27/11/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/NOV/039	24/11/2024	Reliable Analytical Lab.	Good
Analysis Start Date		24/11/2024	Analysis End Date	27/11/2024

### Details

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
22/11/2024	6 MVA Submerged ARC Furnace E"	6.0 MVA	30 min.	12:00	40 meter	2.0
Fuel Used : Electricity			Flue Gas Temperature of Stack : 88° C			
Ambient Temperature : 26° C			Flue Gas Velocity : 7.68M/Sec.			

### Test Details:-

S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	21.96	Max.-30	IS 11255 (P-1)1985 RA 2003

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## TEST REPORT

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2 Urla Industrial Area Raipur CG		7200005648/U102	RAL/2024/NOV/040	27/11/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/NOV/040	24/11/2024	Reliable Analytical Lab.	Good
Analysis Start Date		24/11/2024	Analysis End Date	27/11/2024

### Details

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
22/11/2024	CLU Convertor and thermite and combine stack	650 KW	30 min.	12:30	35 meter	2.295
Fuel Used : Electricity			Flue Gas Temperature of Stack : 79 <sup>0</sup> C			
Ambient Temperature : 26 <sup>0</sup> C			Flue Gas Velocity : 7.82M/Sec.			

### Test Details:-

S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	24.42	Max.-30	IS 11255 (P-1)1985 RA 2003

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### TEST- REPORT

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla, Industrial Area, Raipur CG		7200005648/U102	RAL/2024/NOV/042	27/11/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/NOV/042	24/11/2024	Reliable Analytical Lab.	Good
Analysis Start Date		Analysis End Date		
24/11/2024		27/11/2024		

#### Details

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
22/11/2024	Captive Power Plant Stack- 20 MW	20 MW	30 min.	13:00	73 meter	2.83 Meter
Fuel Used : Electricity			Flue Gas Temperature of Stack : 84 <sup>0</sup> C			
Ambient Temperature : 26 <sup>0</sup> C			Flue Gas Velocity : 8.14M/Sec.			
Total Gas Quantity : 245218.28Nm <sup>3</sup> /hr						

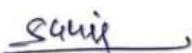
#### Test Details:-

S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	28.92	Max.-50	IS 11255 (P-1)1985 RA 2003
2.	Sulphur Dioxide (Sox)	mg/Nm <sup>3</sup>	218	Max-600	IS 11255 (P-2) 1985
3.	Oxides of Nitrogen (NOx)	mg/Nm <sup>3</sup>	122	Max-300	IS 11255 (P-7) 2005
4.	Carbon Monoxide (CO)*	mg/Nm <sup>3</sup>	2.0	-----	USEPA Method No.10
5.	Hg*	mg/Nm <sup>3</sup>	N.D.	Max-0.03	AAS Method

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Industrial & Environment Pollution,  
Food & Agriculture Products  
Analytical Lab**TEST REPORT**

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2024/DEC/0129	24/12/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/DEC/0129	21/12/2024	Reliable Analytical Lab.	Good
Analysis Start Date	21/12/2024	Analysis End Date	24/12/2024	

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
19/12/2024	3.0 & 3.6 MVA Submerged ARC Furnace A& B Combine Stack	3.0 MVA 3.6 MVA	30 min.	10:30	30. meter	1.4 Meter
Fuel Used : Electricity			Flue Gas Temperature of Stack : 96 <sup>0</sup> C			
Ambient Temperature : 25 <sup>0</sup> C			Flue Gas Velocity : 8.52M/Sec.			

**Test Details:-**

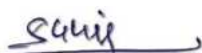
S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	27.62	Max.-30	IS 11255 (P-1)1985 RA 2003

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Food & Agriculture Products  
Analytical Lab**TEST REPORT**

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2 Urla, Industrial Area, Raipur CG		7200005648/U102	RAL/2024/DEC/0130	24/12/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/DEC/0130	21/12/2024	Reliable Analytical Lab.	Good
Analysis Start Date	21/12/2024	Analysis End Date	24/12/2024	

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
19/12/2024	5.5 MVA & 5.5 MVA Submerged ARC Furnace C & D	5.5 MVA & 5.5 MVA	30 min.	11:00	35 meter	1.4 Meter
Fuel Used : Electricity			Flue Gas Temperature of Stack : 92 <sup>o</sup> C			
Ambient Temperature : 25 <sup>o</sup> C			Flue Gas Velocity : 8.16M/Sec.			

**Test Details:-**

S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	25.64	Max.-30	IS 11255 (P-1)1985 RA 2003

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Food & Agriculture Products  
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## TEST REPORT

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2024/DEC/0131	24/12/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/DEC/0131	21/12/2024	Reliable Analytical Lab.	Good
Analysis Start Date	21/12/2024	Analysis End Date	24/12/2024	

### Details

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
19/12/2024	6 MVA Submerged ARC Furnace E"	6.0 MVA	30 min.	11:30	40 meter	2.0
Fuel Used : Electricity			Flue Gas Temperature of Stack : 97 <sup>0</sup> C			
Ambient Temperature : 25 <sup>0</sup> C			Flue Gas Velocity : 9.42M/Sec.			

### Test Details:-

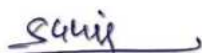
S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	23.68	Max.-30	IS 11255 (P-1)1985 RA 2003

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Food & Agriculture Products  
Analytical Lab**TEST REPORT**

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2 Urla Industrial Area Raipur CG		7200005648/U102	RAL/2024/DEC/0132	24/12/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/DEC/0132	21/12/2024	Reliable Analytical Lab.	Good
Analysis Start Date	21/12/2024	Analysis End Date	24/12/2024	

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
19/12/2024	CLU Convertor and thermite and combine stack	650 KW	30 min.	12:00	35 meter	2.295
Fuel Used : Electricity			Flue Gas Temperature of Stack : 89 <sup>0</sup> C			
Ambient Temperature : 25 <sup>0</sup> C			Flue Gas Velocity : 9.68M/Sec.			

**Test Details:-**

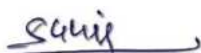
S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	26.92	Max.-30	IS 11255 (P-1)1985 RA 2003

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Food & Agriculture Products  
Analytical Lab**TEST- REPORT**

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla, Industrial Area, Raipur CG		7200005648/U102	RAL/2024/DEC/0134	24/12/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/DEC/0134	21/12/2024	Reliable Analytical Lab.	Good
Analysis Start Date	21/12/2024	Analysis End Date	24/12/2024	

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
19/12/2024	Captive Power Plant Stack- 20 MW	20 MW	30 min.	12:30	73 meter	2.83 Meter
Fuel Used : Electricity			Flue Gas Temperature of Stack : 92 <sup>0</sup> C			
Ambient Temperature : 25 <sup>0</sup> C			Flue Gas Velocity : 7.94M/Sec.			
Total Gas Quantity : 244682.84Nm <sup>3</sup> /hr						

**Test Details:-**

S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	32.68	Max.-50	IS 11255 (P-1)1985 RA 2003
2.	Sulphur Dioxide (Sox)	mg/Nm <sup>3</sup>	234	Max-600	IS 11255 (P-2) 1985
3.	Oxides of Nitrogen (NOx)	mg/Nm <sup>3</sup>	136	Max-300	IS 11255 (P-7) 2005
4.	Carbon Monoxide (CO)*	mg/Nm <sup>3</sup>	3.0	-----	USEPA Method No.10
5.	Hg*	mg/Nm <sup>3</sup>	N.D.	Max-0.03	AAS Method

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**RELIABLE  
ANALYTICAL  
LAB**Water & Waste Water ,  
Industrial & Environment Pollution,  
Food & Agriculture Products  
Analytical Lab**TEST REPORT**

Format No. RAL/F-40

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2025/JAN/123	29/01/2025
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2025/JAN/123	22/01/2025	Reliable Analytical Lab.	Good
Analysis Start Date	23/01/2025	Analysis End Date	28/01/2025	

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
20/01/2025	3.0 & 3.6 MVA Submerged ARC Furnace A& B Combine Stack	3.0 MVA 3.6 MVA	30 min.	10:50	30. meter	1.4 Meter
Fuel Used : Electricity			Flue Gas Temperature of Stack : 89 <sup>0</sup> C			
Ambient Temperature : 29 <sup>0</sup> C			Flue Gas Velocity : 7.72M/Sec.			

**Test Details:-**

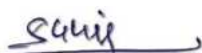
S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	19.87	Max.-25	IS 11255 (P-1)1985 RA 2003

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## TEST REPORT

Format No. RAL/F-40

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2 Urla, Industrial Area, Raipur CG		7200005648/U102	RAL/2025/JAN/124	29/01/2025
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2025/JAN/124	22/01/2025	Reliable Analytical Lab.	Good
Analysis Start Date		Analysis End Date		28/01/2025

### Details

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
20/01/2025	5.5 MVA & 5.5 MVA Submerged ARC Furnace C & D	5.5 MVA & 5.5 MVA	30 min.	11:50	35 meter	1.4 Meter
Fuel Used : Electricity			Flue Gas Temperature of Stack : 92 <sup>0</sup> C			
Ambient Temperature : 25 <sup>0</sup> C			Flue Gas Velocity : 8.16M/Sec.			

### Test Details:-

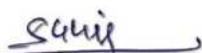
S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	21.75	Max.-25	IS 11255 (P-1)1985 RA 2003

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Food & Agriculture Products  
Analytical Lab**TEST REPORT**

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2025/JAN/125	29/01/2025
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2025/JAN/125	22/01/2025	Reliable Analytical Lab.	Good
Analysis Start Date		Analysis End Date		28/01/2025

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
20/01/2025	6 MVA Submerged ARC Furnace E"	6.0 MVA	30 min.	12:45	40 meter	2.0
Fuel Used : Electricity			Flue Gas Temperature of Stack : 88 <sup>0</sup> C			
Ambient Temperature : 29 <sup>0</sup> C			Flue Gas Velocity : 8.99M/Sec.			

**Test Details:-**

S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	22.48	Max.-25	IS 11255 (P-1)1985 RA 2003

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## TEST REPORT

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2 Urla Industrial Area Raipur CG		7200005648/U102	RAL/2025/JAN/126	29/01/2025
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2025/JAN/126	22/01/2025	Reliable Analytical Lab.	Good
Analysis Start Date		Analysis End Date		28/01/2025

### Details

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
20/01/2025	CLU Convertor and thermite and combine stack	650 KW	30 min.	13:40	35 meter	2.295
Fuel Used : Electricity			Flue Gas Temperature of Stack : 98 <sup>0</sup> C			
Ambient Temperature : 29 <sup>0</sup> C			Flue Gas Velocity : 9.12M/Sec.			

### Test Details:-

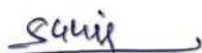
S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	20.20	Max.-25	IS 11255 (P-1)1985 RA 2003

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### TEST- REPORT

Format No. RAL/F-40 A

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Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla, Industrial Area, Raipur CG		7200005648/U102	RAL/2025/JAN/128	29/01/2025
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2025/JAN/128	22/01/2025	Reliable Analytical Lab.	Good
Analysis Start Date	23/01/2025	Analysis End Date		28/01/2025

#### Details

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
20/01/2025	Captive Power Plant Stack- 20 MW	20 MW	30 min.	13:30	73 meter	2.83 Meter
Fuel Used : Electricity			Flue Gas Temperature of Stack : 97 <sup>0</sup> C			
Ambient Temperature : 29 <sup>0</sup> C			Flue Gas Velocity : 6.84M/Sec.			
Total Gas Quantity : 251542.14Nm <sup>3</sup> /hr						

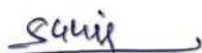
#### Test Details:-

S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	35.64	Max.-50	IS 11255 (P-1)1985 RA 2003
2.	Sulphur Dioxide (Sox)	mg/Nm <sup>3</sup>	249.0	Max-600	IS 11255 (P-2) 1985
3.	Oxides of Nitrogen (NOx)	mg/Nm <sup>3</sup>	140.0	Max-300	IS 11255 (P-7) 2005
4.	Carbon Monoxide (CO)*	mg/Nm <sup>3</sup>	4.0	-----	USEPA Method No.10
5.	Hg*	mg/Nm <sup>3</sup>	N.D.	Max-0.03	AAS Method

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Format No. RAL/F-40

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2025/FEB/120	23/02/2025
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2025/FEB/120	22/01/2025	Reliable Analytical Lab.	Good
Analysis Start Date	20/02/2025	Analysis End Date	23/02/2025	

### Details

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
18/02/2025	3.0 & 3.6 MVA Submerged ARC Furnace A& B Combine Stack	3.0 MVA 3.6 MVA	30 min.	15.50	30. meter	1.4 Meter
Fuel Used : Electricity			Flue Gas Temperature of Stack : 96 <sup>0</sup> C			
Ambient Temperature : 31 <sup>0</sup> C			Flue Gas Velocity : 8.02M/Sec.			

### Test Details:-

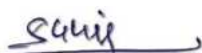
S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	22.86	Max.-25	IS 11255 (P-1)1985 RA 2003

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Food & Agriculture Products  
Analytical Lab**TEST REPORT**

Format No. RAL/F-40

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2 Urla, Industrial Area, Raipur CG		7200005648/U102	RAL/2025/FEB/121	23/02/2025
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2025/FEB/121	20/02/2025	Reliable Analytical Lab.	Good
Analysis Start Date	20/02/2025	Analysis End Date	23/02/2025	

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
18/02/2025	5.5 MVA & 5.5 MVA Submerged ARC Furnace C & D	5.5 MVA & 5.5 MVA	30 min.	16.10	35 meter	1.4 Meter
Fuel Used : Electricity			Flue Gas Temperature of Stack : 98 <sup>0</sup> C			
Ambient Temperature : 31 <sup>0</sup> C			Flue Gas Velocity : 8.86M/Sec.			

**Test Details:-**

S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	24.10	Max.-25	IS 11255 (P-1)1985 RA 2003

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## TEST REPORT

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2025/FEB/122	23/02/2025
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2025/FEB/122	20/02/2025	Reliable Analytical Lab.	Good
Analysis Start Date		20/02/2025	Analysis End Date	23/02/2025

### Details

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
18/02/2025	6 MVA Submerged ARC Furnace E"	6.0 MVA	30 min.	12:45	40 meter	2.0
Fuel Used : Electricity			Flue Gas Temperature of Stack : 96 <sup>0</sup> C			
Ambient Temperature : 31 <sup>0</sup> C			Flue Gas Velocity : 9.13M/Sec.			

### Test Details:-

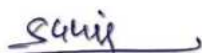
S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	23.89	Max.-25	IS 11255 (P-1)1985 RA 2003

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Analytical Lab**TEST REPORT**

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2 Urla Industrial Area Raipur CG		7200005648/U102	RAL/2025/FEB/123	23/02/2025
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2025/FEB/123	22/01/2025	Reliable Analytical Lab.	Good
Analysis Start Date		20/02/2025	Analysis End Date	23/02/2025

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
18/02/2025	CLU Convertor and thermite and combine stack	650 KW	30 min.	13:40	35 meter	2.295
Fuel Used : Electricity			Flue Gas Temperature of Stack : 103 <sup>0</sup> C			
Ambient Temperature : 31 <sup>0</sup> C			Flue Gas Velocity : 9.65M/Sec.			

**Test Details:-**

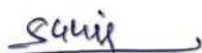
S. No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	22.78	Max.-25	IS 11255 (P-1)1985 RA 2003

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### TEST- REPORT

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla, Industrial Area, Raipur CG		7200005648/U102	RAL/2025/FEB/125	23/02/2025
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2025/FEB/125	20/02/2025	Reliable Analytical Lab.	Good
Analysis Start Date	20/02/2025	Analysis End Date		23/02/2025

#### Details

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
18/02/2025	Captive Power Plant Stack- 20 MW	20 MW	30 min.	14:40	73 meter	2.83 Meter
Fuel Used : Electricity			Flue Gas Temperature of Stack : 97 <sup>0</sup> C			
Ambient Temperature : 31 <sup>0</sup> C			Flue Gas Velocity : 6.94M/Sec.			
Total Gas Quantity : 262332.14Nm <sup>3</sup> /hr						

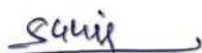
#### Test Details:-

S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	41.25	Max.-50	IS 11255 (P-1)1985 RA 2003
2.	Sulphur Dioxide (Sox)	mg/Nm <sup>3</sup>	258.0	Max-600	IS 11255 (P-2) 1985
3.	Oxides of Nitrogen (NOx)	mg/Nm <sup>3</sup>	146.0	Max-300	IS 11255 (P-7) 2005
4.	Carbon Monoxide (CO)*	mg/Nm <sup>3</sup>	5.0	-----	USEPA Method No.10
5.	Hg*	mg/Nm <sup>3</sup>	N.D.	Max-0.03	AAS Method

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**TEST REPORT**

Format No. RAL/F-40

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2025/MAR/148	29/03/2025
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2025/MAR/148	26/03/2025	Reliable Analytical Lab.	Good
Analysis Start Date	26/03/2025	Analysis End Date	29/03/2025	

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
24/03/2025	3.0 & 3.6 MVA Submerged ARC Furnace A& B Combine Stack	3.0 MVA 3.6 MVA	30 min.	13:30	30. meter	1.4 Meter
Fuel Used : Electricity			Flue Gas Temperature of Stack : 98 <sup>0</sup> C			
Ambient Temperature : 35 <sup>0</sup> C			Flue Gas Velocity : 7.44M/Sec.			

**Test Details:-**

S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	24.58	Max.-25	IS 11255 (P-1)1985 RA 2003

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Analytical Lab**TEST REPORT**

Format No. RAL/F-40

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2 Urla, Industrial Area, Raipur CG		7200005648/U102	RAL/2025/MAR/149	29/03/2025
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2025/MAR/149	26/03/2025	Reliable Analytical Lab.	Good
Analysis Start Date		26/03/2025	Analysis End Date	29/03/2025

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
24/03/2025	5.5 MVA & 5.5 MVA Submerged ARC Furnace C & D	5.5 MVA & 5.5 MVA	30 min.	14:00	35 meter	1.4 Meter
Fuel Used : Electricity			Flue Gas Temperature of Stack : 97 <sup>o</sup> C			
Ambient Temperature : 35 <sup>o</sup> C			Flue Gas Velocity : 7.42M/Sec.			

**Test Details:-**

S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	20.18	Max.-25	IS 11255 (P-1)1985 RA 2003

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**RELIABLE  
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LAB**Water & Waste Water ,  
Industrial & Environment Pollution,  
Food & Agriculture Products  
Analytical Lab

TC - 11719

**TEST REPORT**

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2025/MAR/150	29/03/2025
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2025/MAR/150	26/03/2025	Reliable Analytical Lab.	Good
Analysis Start Date		26/03/2025	Analysis End Date	29/03/2025

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
24/03/2025	6 MVA Submerged ARC Furnace E"	6.0 MVA	30 min.	14:30	40 meter	2.0
Fuel Used : Electricity			Flue Gas Temperature of Stack : 95 <sup>0</sup> C			
Ambient Temperature : 35 <sup>0</sup> C			Flue Gas Velocity : 8.46M/Sec.			

**Test Details:-**

S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	22.84	Max.-25	IS 11255 (P-1)1985 RA 2003

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Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2 Urla Industrial Area Raipur CG		7200005648/U102	RAL/2025/MAR/151	29/03/2025
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2025/MAR/151	26/03/2025	Reliable Analytical Lab.	Good
Analysis Start Date		26/03/2025	Analysis End Date	29/03/2025

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
24/03/2025	CLU Convertor and thermite and combine stack	650 KW	30 min.	15:00	35 meter	2.295
Fuel Used : Electricity			Flue Gas Temperature of Stack : 98 <sup>0</sup> C			
Ambient Temperature : 35 <sup>0</sup> C			Flue Gas Velocity : 8.86M/Sec.			

**Test Details:-**

S. No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	24.22	Max.-25	IS 11255 (P-1)1985 RA 2003

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Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2, Urla, Industrial Area, Raipur CG		7200005648/U102	RAL/2025/MAR/153	29/03/2025
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2025/MAR/153	26/03/2025	Reliable Analytical Lab.	Good
Analysis Start Date	26/03/2025	Analysis End Date	29/03/2025	

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
24/03/2025	Captive Power Plant Stack- 20 MW	20 MW	30 min.	15:30	73 meter	2.83 Meter
Fuel Used : Electricity			Flue Gas Temperature of Stack : 106 <sup>0</sup> C			
Ambient Temperature : 35 <sup>0</sup> C			Flue Gas Velocity : 8.46M/Sec.			
Total Gas Quantity : 262628.46Nm <sup>3</sup> /hr						

**Test Details:-**

S.No.	Test Parameters	Unit	Result	Specification	Test Method
1.	Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	39.68	Max.-50	IS 11255 (P-1)1985 RA 2003
2.	Sulphur Dioxide (Sox)	mg/Nm <sup>3</sup>	282.0	Max-600	IS 11255 (P-2) 1985
3.	Oxides of Nitrogen (NOx)	mg/Nm <sup>3</sup>	152.0	Max-300	IS 11255 (P-7) 2005
4.	Carbon Monoxide (CO)*	mg/Nm <sup>3</sup>	6.0	-----	USEPA Method No.10
5.	Hg*	mg/Nm <sup>3</sup>	N.D.	Max-0.03	AAS Method

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7. (\*) This parameter not covered our NABL Scope

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**END OF REPORT**

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**TEST REPORT**


Report No.: GECPL/AA-202503/31		Date: 20/03/2025	
URL No.:			
Name & Address of Customer	:	M/s Hira Power and Steels Limited Khasra No. 511/1, 512/2, Urla Industrial Area, Raipur (Chhattisgarh)	
Contact Person	:	-	
Sample Collection Date	:	11/03/2025	Sampling Type : NA
Sample Receipt Date	:	17/03/2025	Sample ID : AA-202503/31
Sampling Location	:	1.Near A and B Furnace 2.C and D Furnace 3.CLU Convertor 4.Raw Material Yard 5.CHP Area	Sample Description : Fugitive Emission
Sample Collected / Submitted by	:	GECPL Team	Protocol used for monitoring : IS 5182(Part-14): 2019
Quantity / No. of Sample	:	2 Filter paper, (Pm <sub>10</sub> , Pm <sub>2.5</sub> )	Analysis Started On : 17/03/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On : 20/03/2025
Type of Container	:	Plastic Container	Format No. : 7.8 F-05
Meteorological condition during monitoring		25°C ±3 °C	

**Fugitive Emission Analysis Results**

Sr. No.	Location	Parameter	Results	Unit	Protocol used for Analysis	Specification
1	Near A and B Furnace	Total Suspended Particulate Matter as ( SPM)	1002	µg/m <sup>3</sup>	IS 5182 (Part 4) 2019	NMT 2000
2	C and D Furnace		1008	µg/m <sup>3</sup>		NMT 2000
3	CLU Convertor		1044	µg/m <sup>3</sup>		NMT 2000
4	Raw Material Yard		1013	µg/m <sup>3</sup>		NMT 2000
5	CHP Area		1041	µg/m <sup>3</sup>		NMT 2000

**Remarks:** Sampling done by GECPL

-----End Report-----

  
**Tested By**  
**(Sr. Chemist/Chemist)**

  
**Verified by & Authorized Signatory**  
**Mr. Neeraj Kumar yadav**  
**(Quality Manager)**

This Report is issued under the following terms & Condition:

- Samples are not drawn by Gurukripa Enviro Care Private Limited, unless otherwise mentioned. The results are applicable only to the submitted sample. Endorsement of the product is neither inferred nor implemented.
- The test report in full or part shall not be used for promotional or publicity purposes without the written consent of Gurukripa Enviro Care Private Limited.
- Samples shall be stored for the period of 15 days after the date of issue of Report.






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Food & Agriculture Products  
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## TEST REPORT

Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2,Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2024/APR/101	17/04/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/APR/101	10/04/2024	Chemist	Good
Analysis Start Date		Analysis End Date		16/04/2024

### Details

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
10/04/2024	3.0 & 3.6 MVA Submerged ARC Furnace A& B Combine Stack	3.0 MVA 3.6 MVA	30 min.	12:00	30. meter	1.4 Meter
Stack Attached to		Bag Filter				
Fuel Used : Electricity			Ambient Temperature : 40° C			

### Test Details:-

S.No.	Test Parameters	Unit	Result		Specifica tion	Test Method
			A & B Inlet	A & b Outlet		
1.	Flue Gas Temperature of Stack	°C	157.0	112.0	-	IS 11255 (P-1)1985 RA 2003
2.	Flue Gas Velocity	M/Sec	14.3	6.22	-	IS 11255 (P-1)1985 RA 2003
3.	Total gas Quantity	Nm3/h	55120.0	27380.2	-	IS 11255 (P-1)1985 RA 2003
4.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	785.0	22.54	Max.-30	IS 11255 (P-1)1985 RA 2003
Efficiency (%)			98.74			

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Format No. RAL/F-40 A

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra No. 511/1,512/2,Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2024/APR/102	17/04/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/APR/102	10/04/2024	Chemist	Good
Analysis Start Date	13/04/2024	Analysis End Date	16/04/2024	

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
10/04/2024	5.5 MVA& 5.5 MVA Submerged ARC Furnace C & D	5.5 MVA& 5.5 MVA	30 min.	13.30	35 meter	1.4 Meter
Stack Attached to		Bag Filter				
Fuel Used : Electricity			Ambient Temperature : 30° C			

**Test Details: -**

S.No	Test Parameters	Unit	Result			Specification	Test Method
			C Inlet	D Inlet	C&D Outlet (Combined Stack)		
1.	Flue Gas Temperature	°C	264.0	254.0	135.0	-	IS 11255 (P-1)1985 RA 2003
2.	Flue Gas Velocity	M/Sec	9.52	11.8	8.01	-	IS 11255 (P-1)1985 RA 2003
3.	Total gas Quantity	Nm3/h	29483.62	33762.72	28647.23	-	IS 11255 (P-1)1985 RA 2003
4.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	813.0	855.0	27.8	Max.-30	IS 11255 (P-1)1985 RA 2003
Total (TPM)			1668.0		27.8		
Efficiency (%)					97.94		

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Hira Power and Steels Ltd. Khasra No. 511/1,512/2,Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2024/APR/103	17/04/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/APR/103	10/04/2024	Chemist	Good
Analysis Start Date		Analysis End Date		
13/04/2024		16/04/2024		

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
10/04/2024	6 MVA Submerged ARC Furnace E"	6.0 MVA	30 min.	10.50	40. meter	2.0 Meter
Stack Attached to		Bag Filter				
Fuel Used : Electricity			Ambient Temperature : 30 <sup>0</sup> C			

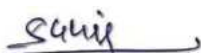
**Test Details: -**

S.No.	Test Parameters	Unit	Result		Specification	Test Method
			E Inlet	E Outlet		
1.	Flue Gas Temperature	<sup>0</sup> C	189	79.6	-	IS 11255 (P-1)1985 RA 2003
2.	Flue Gas Velocity	M/Sec	15.32	5.45	-	IS 11255 (P-1)1985 RA 2003
3.	Total gas Quantity	Nm3/h	112382.5	48431.2	-	IS 11255 (P-1)1985 RA 2003
4.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	402.5	26.2	Max.-30	IS 11255 (P-1)1985 RA 2003
Efficiency (%)			98.77			

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Hira Power and Steels Ltd. Khasra No. 511/1,512/2,Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2024/APR/104	17/04/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/APR/104	10/04/2024	Chemist	Good
Analysis Start Date	13/04/2024	Analysis End Date	16/04/2024	

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
10/04/2024	CLU Convertor and thermite and combine stack	650 KW	30 min.	14:55	35 meter	2.295
Stack Attached to		Bag Filter				
Fuel Used : Electricity			Ambient Temperature : 30 <sup>0</sup> C			

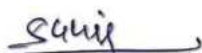
**Test Details: -**

S.No.	Test Parameters	Unit	Result		Specification	Test Method
			CLU Inlet	CLU Outlet		
1.	Flue Gas Temperature of Stack	<sup>0</sup> C	287	96.0	-	IS 11255 (P-1)1985 RA 2003
2.	Flue Gas Velocity	M/Sec	10.55	21.32	-	IS 11255 (P-1)1985 RA 2003
3.	Total gas Quantity	Nm <sup>3</sup> /h	79721.8	256810.5	-	IS 11255 (P-1)1985 RA 2003
4.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	2850.1	23.4	Max.-30	IS 11255 (P-1)1985 RA 2003
Efficiency (%)			98.56			

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Hira Power and Steels Ltd. Khasra No. 511/1,512/2,Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2024/APR/105	17/04/2024
Sample Name	Sample ID	Date of Receipt	Sampling Done By	Condition of Sample
Stack Emission Monitoring	RAL/2024/APR/105	10/04/2024	Chemist	Good
Analysis Start Date		Analysis End Date		
13/04/2024		16/04/2024		

**Details**

Sampling Date	Type Of Stack	Capacity	Sampling Duration	Sampling Time	Height of Stack	Diameter of Stack
10/04/2024	Captive Power Plant Stack-20 MW	20 MW	30 min.	16:55	35 meter	2.83 Meter
Stack Attached to		Bag Filter				
Fuel Used : Coal & Coke			Ambient Temperature : 30 <sup>0</sup> C			

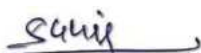
**Test Details: -**

S.No.	Test Parameters	Unit	Result		Specification	Test Method
			20 MW Inlet	20 MW Outlet		
1.	Flue Gas Temperature of Stack	<sup>0</sup> C	146	117.0	-	IS 11255 (P-1)1985 RA 2003
2.	Flue Gas Velocity	M/Sec	18.37	12.8	-	IS 11255 (P-1)1985 RA 2003
3.	Total gas Quantity	Nm <sup>3</sup> /h	798364.62	302749.27	-	IS 11255 (P-1)1985 RA 2003
4.	Total Particulate Matter (TPM)	mg/nm <sup>3</sup>	745.0	32.93	Max.-50	IS 11255 (P-1)1985 RA 2003
Efficiency (%)			98.99			

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Hira Power and Steels Ltd. Khasra, No. 511/1,512/2,Urla, Industrial Area, Raipur CG		7200005648/U102	RAL/2024/OCT/079	26/10/2024
Sampling Done by	Date of Receipt	Sample Quantity	Batch No.	Packing
Client	23/10/2024	1 ltr.	NA	Plastic bottle
Sample Name	Sample ID	Condition of Sample		Sealed/Unsealed
Siltation Tank Water	RAL/2024/OCT/079	Good		Unsealed
Analysis Start Date	23/10/2024	Analysis End Date		26/10/2024

### Test Details:-

S. No.	Test Parameter	Unit	Inlet Water	Outlet Water	Limit as Per Consent	Method of Analysis
1.	pH @ 25 °C	--	7.62	7.02	5.5 to 9.0	IS 3025 (P-11) 2017
2.	Total Suspended Solid	mg/l	12.0	6.0	100	IS 3025 (P-17) 2017
3.	Oil & Grease	mg/l	Nil	Nil	10	IS 3025 (P-39) 2021
4.	Chemical Oxygen Demand	mg/l	64.16	18.92	250	IS 3025 (P-58) 2006
5.	Biological Oxygen Demand at 27°C (3Days)	mg/l	10.0	3.0	30	IS 3025 (P-44) 1993

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Hira Power and Steels Ltd. Khasra, No. 511/1,512/2,Urla, Industrial Area, Raipur CG		7200005648/U102	RAL/2024/NOV/041	27/11/2024
Sampling Done by	Date of Receipt	Sample Quantity	Batch No.	Packing
Client	24/11/2024	1 ltr.	NA	Plastic bottle
Sample Name	Sample ID	Condition of Sample		Sealed/Unsealed
Siltation Tank Water	RAL/2024/NOV/041	Good		Unsealed
Analysis Start Date	24/11/2024	Analysis End Date		27/11/2024

**Test Details:-**

S. No.	Test Parameter	Unit	Inlet Water	Outlet Water	Limit as Per Consent	Method of Analysis
1.	pH @ 25 °C	--	7.48	7.10	5.5 to 9.0	IS 3025 (P-11) 2017
2.	Total Suspended Solid	mg/l	18.0	10.0	100	IS 3025 (P-17) 2017
3.	Oil & Grease	mg/l	Nil	Nil	10	IS 3025 (P-39) 2021
4.	Chemical Oxygen Demand	mg/l	58.96	14.84	250	IS 3025 (P-58) 2006
5.	Biological Oxygen Demand at 27°C (3Days)	mg/l	8.0	2.0	30	IS 3025 (P-44) 1993

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## TEST- REPORT

Format No. RAL/F-40

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra, No. 511/1,512/2,Urla, Industrial Area, Raipur CG		7200005648/U102	RAL/2024/DEC/0133	24/12/2024
Sampling Done by	Date of Receipt	Sample Quantity	Batch No.	Packing
Client	21/12/2024	2.0 ltr.	NA	Plastic bottle
Sample Name	Sample ID	Condition of Sample		Sealed/Unsealed
Siltation Tank Water	RAL/2024/DEC/0133	Good		Unsealed
Analysis Start Date	21/12/2024	Analysis End Date		24/12/2024

### Test Details:-

S. No.	Test Parameter	Unit	Inlet Water	Outlet Water	Limit as Per Consent	Method of Analysis
1.	pH @ 25 °C	--	7.32	7.18	5.5 to 9.0	IS 3025 (P-11) 2017
2.	Total Suspended Solid	mg/l	22.0	16.0	100	IS 3025 (P-17) 2017
3.	Oil & Grease	mg/l	Nil	Nil	10	IS 3025 (P-39) 2021
4.	Chemical Oxygen Demand	mg/l	64.28	20.36	250	IS 3025 (P-58) 2006
5.	Biological Oxygen Demand at 27°C (3Days)	mg/l	10.0	4.0	30	IS 3025 (P-44) 1993

### Note:

- 1.The results are related only to the sample tested.
- 2.This report **shall** not be reproduced without the written approval of RAL.
- 3.Specification as per Party Consent.
- 4.The legal liabilities limited up to the analytical charges only.
- 5.This Report in full or in part shall not be used for advertising or as evidence in any court of Law
- 6.Statement or conformity to a specifications is given only on the requests of the customer

\*\*\*\*\*

**END OF REPORT**

*Sauri*  
Checked by



Authorized Signatory

## TEST- REPORT

Format No. RAL/F-40

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra, No. 511/1,512/2,Urla, Industrial Area, Raipur CG		7200005648/U102	RAL/2025/JAN/127	29/01/2025
Sampling Done by	Date of Receipt	Sample Quantity	Batch No.	Packing
Client	22/01/2025	2.5 ltr.	NA	Plastic bottle
Sample Name	Sample ID	Condition of Sample		Sealed/Unsealed
Siltation Tank Water	RAL/2025/JAN/125	Good		Unsealed
Analysis Start Date	23/01/2025	Analysis End Date		29/01/2025

### Test Details:-

S. No.	Test Parameter	Unit	Inlet Water	Outlet Water	Limit as Per Consent	Method of Analysis
1.	pH @ 25 °C	--	7.28	7.10	5.5 to 9.0	IS 3025 (P-11) 2017
2.	Total Suspended Solid	mg/l	44.0	9.0	100	IS 3025 (P-17) 2017
3.	Oil & Grease	mg/l	Nil	Nil	10	IS 3025 (P-39) 2021
4.	Chemical Oxygen Demand	mg/l	70.0	17.0	250	IS 3025 (P-58) 2006
5.	Biological Oxygen Demand at 27°C (3Days)	mg/l	20.0	5.0	30	IS 3025 (P-44) 1993

### Note:

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- 6.Statement or conformity to a specifications is given only on the requests of the customer

\*\*\*\*\*

**END OF REPORT**

*Sauri*  
Checked by



Authorized Signatory

## TEST- REPORT

Format No. RAL/F-40

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.	CoA Issue Date
Hira Power and Steels Ltd. Khasra, No. 511/1,512/2,Urla, Industrial Area, Raipur CG		7200005648/U102	RAL/2025/FEB/124	24/02/2025
Sampling Done by	Date of Receipt	Sample Quantity	Batch No.	Packing
Client	20/02/2025	2.5 ltr.	NA	Plastic bottle
Sample Name	Sample ID	Condition of Sample	Sealed/Unsealed	
Siltation Tank Water	RAL/2025/FEB/124	Good	Unsealed	
Analysis Start Date	20/02/2025	Analysis End Date	24/02/2025	

### Test Details:-

S. No.	Test Parameter	Unit	Inlet Water	Outlet Water	Limit as Per Consent	Method of Analysis
1.	pH @ 25 °C	--	7.65	7.13	5.5 to 9.0	IS 3025 (P-11) 2017
2.	Total Suspended Solid	mg/L	76.0	8.0	100	IS 3025 (P-17) 2017
3.	Oil & Grease	mg/L	Nil	Nil	10	IS 3025 (P-39) 2021
4.	Chemical Oxygen Demand	mg/L	78.0	19.0	250	IS 3025 (P-58) 2006
5.	Biological Oxygen Demand at 27°C (3Days)	mg/L	22.0	6.0	30	IS 3025 (P-44) 1993

### Note:

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\*\*\*\*\*

**END OF REPORT**

*Sauri*  
Checked by



Authorized Signatory



An ISO/IEC 17025:2017 NABL Accredited Testing Lab

**RELIABLE  
ANALYTICAL  
LAB**Water & Waste Water ,  
Industrial & Environment Pollution,  
Food & Agriculture Products  
Analytical Lab**TEST- REPORT**

Format No. RAL/F-40

<b>Name &amp; Address of Company/Customer</b>		<b>Work Order No./ Reference No. of Letter</b>	<b>CoA No.</b>	<b>CoA Issue Date</b>
<b>Hira Power and Steels Ltd.</b> Khasra, No. 511/1,512/2, Urla, Industrial Area, Raipur CG		<b>7200005648/U102</b>	RAL/2025/MAR/152	29/03/2025
<b>Sampling Done by</b>	<b>Date of Receipt</b>	<b>Sample Quantity</b>	<b>Batch No.</b>	<b>Packing</b>
Client	26/03/2025	2.0 ltr.	NA	Plastic bottle
<b>Sample Name</b>	<b>Sample ID</b>	<b>Condition of Sample</b>		<b>Sealed/Unsealed</b>
Siltation Tank Water	RAL/2025/MAR/152	Good		Unsealed
<b>Analysis Start Date</b>	26/03/2025	<b>Analysis End Date</b>		29/03/2025

**Test Details:-**

S. No.	Test Parameter	Unit	Inlet Water	Outlet Water	Limit as Per Consent	Method of Analysis
1.	pH @ 25 °C	--	7.54	7.08	5.5 to 9.0	IS 3025 (P-11) 2017
2.	Total Suspended Solid	mg/L	68.0	6.0	100	IS 3025 (P-17) 2017
3.	Oil & Grease	mg/L	Nil	Nil	10	IS 3025 (P-39) 2021
4.	Chemical Oxygen Demand	mg/L	62.0	14.0	250	IS 3025 (P-58) 2006
5.	Biological Oxygen Demand at 27°C (3Days)	mg/L	18.0	4.0	30	IS 3025 (P-44) 1993

**Note:**

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6. Statement or conformity to a specifications is given only on the requests of the customer

\*\*\*\*\*

**END OF REPORT**

*Sauri*  
Checked by



Authorized Signatory



**TEST REPORT**

Report No.: GECPL/W-202503/53			Date:		20/03/2025
URL No.:					
Customer Name & Address	:	M/s Hira Power and Steels Limited Khasra No. 511/1, 512/2, Urla Industrial Area, Raipur (Chhattisgarh)			
Contact Person	:	-			
Date of Sample Collection	:	14/03/2025	Sampling Type	:	Grab
Date of Sample Received	:	17/03/2025	Sample ID	:	W-202503/53
Sampling Location	:	Borewell Water	Sample Description	:	Ground Water
Sample Collected / Submitted by	:	GECPL Team	Protocol used for Sampling	:	APHA 24 <sup>th</sup> Edition
Quantity / No. of Sample	:	5 Liter/1Nos.	Analysis Started On	:	17/03/2025
Packing / Seal	:	Cap Sealed	Analysis Completed On	:	20/03/2025
Type of Container	:	Plastic Container	Format No.	:	7.8 F-01
Environmental Condition during the test			25°C ±3 °C		

**Water Analysis Results**

S. No.	Name of Test	Method of Test	Test Result	Units	Limits as per IS:10500:2023	
					Acceptable	Permissible
Chemical Testing						
Water						
1	pH	IS:3025 (Part-11)-2022	6.89	-	6.5 – 8.5	No relaxation
2	EC	IS:3025 (Part-14)-2023	1112	µs/Cm		
3	Colour	IS:3025 (Part-4)- 2021	BLQ (< 1.0)	Hazen	5.0 (Max.)	15.0
4	Odour	IS:3025 (Part-5)- 2018	Agreeable	-	Agreeable	Agreeable
5	Taste	IS:3025 (Part-8)- 2023	Agreeable	-	Agreeable	Agreeable
6	Turbidity	IS:3025 (Part-10)-2023	BLQ (< 0.1)	NTU	1.0 (Max.)	5.0
7	Total Dissolved Solids	IS:3025 (Part-16)-2023	711.6	mg/L	500.0 (Max.)	2000.0
8	Free Residual Chlorine	IS 3025 (Part-26)-2021	BLQ(< 0.05)	mg/L	0.20 (Min.)	1.0
9	Chlorides (as Cl-)	IS:3025 (Part-32)-2019	102	mg/L	250.0 (Max.)	1000.0
10	Iron (as Fe)	APHA 24 <sup>th</sup> Edition 3500 Fe-B	BLQ(< 0.1)	mg/L	0.3 (Max.)	No relaxation
11	Fluorides (as F)	IS 3025 (Part-60)-2023	0.5	mg/L	1.0 (Max.)	1.5
12	Total Hardness (as CaCO3)	IS:3025 (Part-21)-2023	486	mg/L	200.0 (Max.)	600.0
13	Calcium (as Ca)	IS:3025 (Part-40)-2024	80	mg/L	75.0 (Max.)	200.0
14	Magnesium (as Mg)	IS:3025 (Part-46)-2023	69.5	mg/L	30.0 (Max.)	100.0
15	Total Alkalinity (as CaCO3)	IS:3025 (Part-23)-2023	184	mg/L	200.0 (Max.)	600.0

**Remarks:** BLQ: below limit of quantification

Tested By  
(Sr. Chemist/Chemist)

Verified By & Authorized Signatory  
Mr. Neeraj Kumar Yadav  
(Quality Manager)





## TEST REPORT

Report No.: GECPL/W-202503/53			Date:		20/03/2025
URL No.:					
Customer Name & Address	:	M/s Hira Power and Steels Limited Khasra No. 511/1, 512/2, Urla Industrial Area, Raipur (Chhattisgarh)			
Contact Person	:	-			
Date of Sample Collection	:	14/03/2025	Sampling Type	:	Grab
Date of Sample Received	:	17/03/2025	Sample ID	:	W-202503/53
Sampling Location	:	Borewell Water	Sample Description	:	Ground Water
Sample Collected / Submitted by	:	GECPL Team	Protocol used for Sampling	:	APHA 24 <sup>th</sup> Edition
Quantity / No. of Sample	:	5 Liter/1Nos.	Analysis Started On	:	17/03/2025
Packing / Seal	:	Cap Sealed	Analysis Completed On	:	20/03/2025
Type of Container	:	Plastic Container	Format No.	:	7.8 F-01
Environmental Condition during the test			25°C ±3 °C		

## Water Analysis Results

S. No.	Name of Test	Method of Test	Test Result	Units	Limits as per IS:10500:2023	
					Acceptable	Permissible
Chemical Testing						
Water						
16	Potassium (as K)	APHA 24th Edition 3500-K B	BLQ(<1.0)	mg/L	-	-
17	Sodium (as Na)	APHA 24th Edition 3500-Na B	1.2	mg/L	-	-
18	Nitrate (as NO <sub>3</sub> )	APHA 24 <sup>th</sup> Edition 4500-NO3-B	43.10	mg/L	45.0 (Max.)	No relaxation
19	Sulphate (as SO <sub>4</sub> )	IS:3025 (Part-24/Sec-1) 2022	48.23	mg/L	200.0 (Max.)	400.0
20	Cadmium (as Cd)	APHA 24 <sup>th</sup> Edition 3111 Cd-B	BLQ(<0.02)	mg/L	0.1 (Max.)	No relaxation
21	Chromium (as Cr)	APHA 24th Edition 3111 Cr B	BLQ(<0.05)	mg/l	0.05 (Max.)	No relaxation
22	Copper (as Cu)	APHA 24th Edition 3111 Cu B	BLQ(<0.04)	mg/l	0.05 (Max.)	1.50
23	Manganese (as Mn)	APHA 24th Edition 3111 Mn	BLQ (< 0.05)	mg/L	0.1 (Max.)	0.3
24	Lead (as Pb)	APHA 24th Edition/3111 Pb B	BLQ(<0.1)	mg/l	0.01(Max.)	No relaxation
25	Zinc (as Zn)	APHA 24th Edition 3111 Zn B	BLQ(<0.05)	mg/L	5.0 (Max.)	15.0
26	Aluminum (as Al)	APHA 24thEdition 3111 Al D	BLQ(<1.0)	mg/L	0.03 (Max.)	0.20
27	Boron (as B)	APHA 24thEdition 4500-B-B	BLQ(<:0.1)	mg/L	0.50 (Max.)	1.0
28	Mercury (as Hg)	APHA 24th Edition 3112 Hg B	BLQ(<0.001)	mg/L	0.001 (Max.)	No relaxation
29	Nickel (as Ni)	APHA 24th Edition3111Ni B	BLQ(<0.1)	mg/L	0.02(Max.)	No relaxation
30	Arsenic (as As)	APHA 24thEdition 3114 As B	BLQ(<0.005)	mg/L	0.01 (Max.)	0.05

**Remarks:** BLQ: below limit of quantification,

*[Signature]*  
 Tested By  
 (Sr. Chemist/Chemist)

*[Signature]*  
 Verified By & Authorized Signatory  
 Mr. Neera Kumar Yadav  
 (Quality Manager)



# GURUKRIPA ENVIRO CARE PVT. LTD.

Complete Enviro Solution

## TEST REPORT

Report No.: GECPL/W-202503/53			Date:		20/03/2025
URL No.:					
Customer Name & Address	:	M/s Hira Power and Steels Limited Khasra No. 511/1, 512/2, Urla Industrial Area, Raipur (Chhattisgarh)			
Contact Person	:	-			
Date of Sample Collection	:	14/03/2025	Sampling Type	:	Grab
Date of Sample Received	:	17/03/2025	Sample ID	:	W-202503/53
Sampling Location	:	Borewell Water	Sample Description	:	Ground Water
Sample Collected / Submitted by	:	GECPL Team	Protocol used for Sampling	:	APHA 24 <sup>th</sup> Edition
Quantity / No. of Sample	:	5 Liter/1Nos.	Analysis Started On	:	17/03/2025
Packing / Seal	:	Cap Sealed	Analysis Completed On	:	20/03/2025
Type of Container	:	Plastic Container	Format No.	:	7.8 F-01
Environmental Condition during the test			25°C ±3 °C		

## Water Analysis Results

S. No.	Name of Test	Method of Test	Test Result	Units	Limits as per IS:10500:2023	
					Acceptable	Permissible
Biological Testing						
Water						
31*	Faecal Coliform	IS : 1622-1981	<2	MPN/100	1600	-
32*	E. Coliform	IS : 15185:2016	Absent	Colonies Per 100 ml	Shall Not Detectable in any 100 ml sample	-

**Remarks:** \*Test Results with star mark are subcontracted of other NABL Accredited Lab.

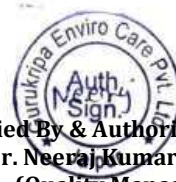
MPN: - Most Probable Number

Sampling done by GECPL representative

-----End Report-----

Tested By

(Sr. Chemist/Chemist)



Verified By & Authorized Signatory  
Mr. Neeraj Kumar Yadav  
(Quality Manager)

This Report is issued under the following terms & Condition:

1. Samples are not drawn by Gurukripa Enviro Care Private Limited, unless otherwise mentioned. The results are applicable only to the submitted sample. Endorsement of the product is neither inferred nor implemented.
2. The test report in full or part shall not be used for promotional or publicity purposes without the written consent of Gurukripa Enviro Care Private Limited.
3. Samples shall be stored for the period of 15 days after the date of issue of Report.



+91-97996 00577  
+91-99289 11231



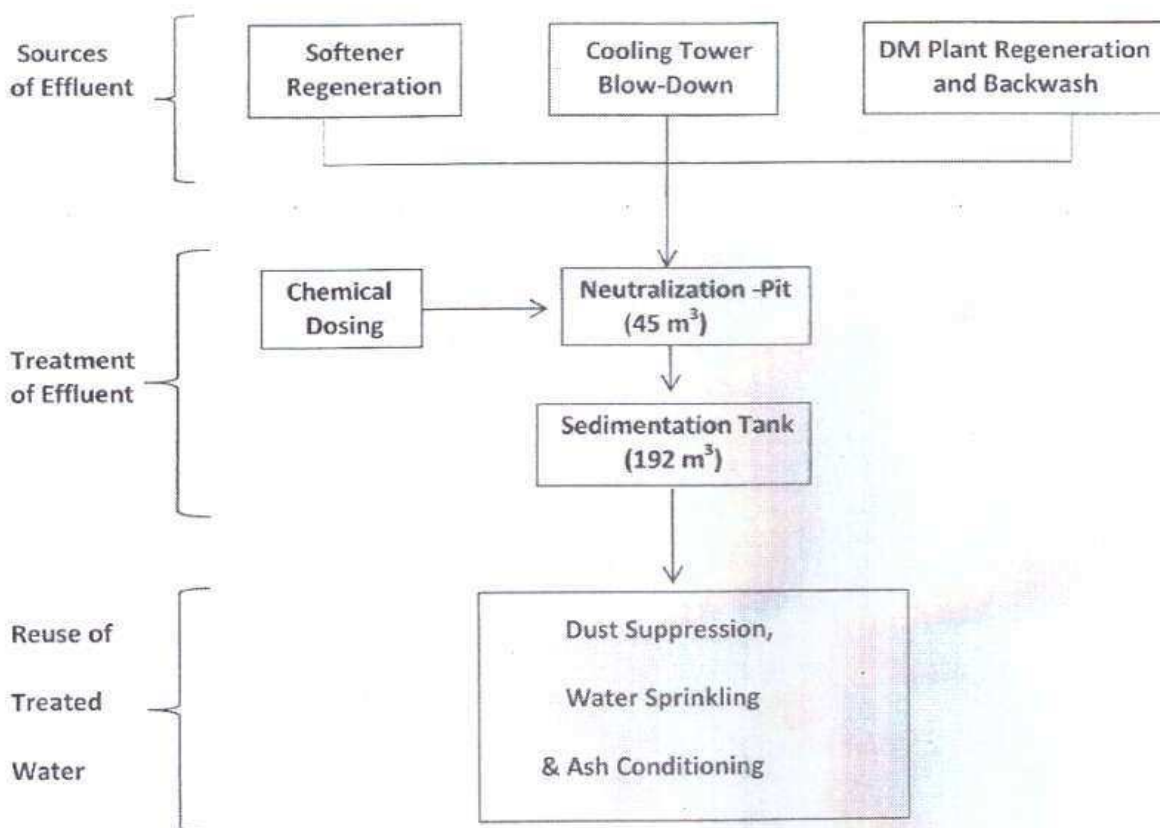
info@gurukripaenviro.com  
www.gurukripaenviro.com



J-491/492, Near Chatrala Circle,  
Sitapura Industrial Area, Jaipur-302022 (Raj.)

## 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.





Annexure-XI

Anneure-XI



**GPS Map Camera**

**Raipur, Chhattisgarh, India**

8J7C+X6C, Metal Park Rd, Urla Industrial Complex, Birgoan, Raipur, Chhattisgarh  
492003, India

Lat 21.315995°

Long 81.620306°

29/12/23 04:19 PM GMT +05:30

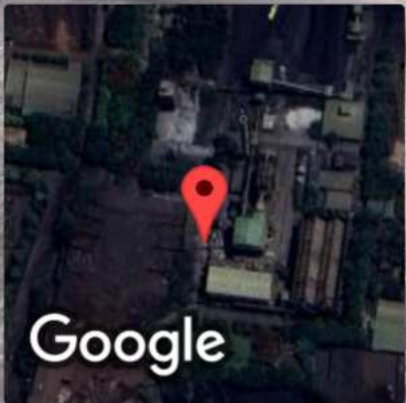


**Google**





**GPS Map Camera**



**Raipur, Chhattisgarh, India**

557,563,564, Metal Park Rd, Urla Industrial Complex, Birgoan, Raipur,  
Chhattisgarh 492003, India

Lat 21.31807°

Long 81.618805°

29/12/23 04:04 PM GMT +05:30





**GPS Map Camera**



**Raipur, Chhattisgarh, India**

557,563,564, Metal Park Rd, Urla Industrial Complex, Birgoan, Raipur,  
Chhattisgarh 492003, India

Lat 21.317994°

Long 81.618762°

29/12/23 04:03 PM GMT +05:30



**RELIABLE  
ANALYTICAL  
LAB**

15, Paricharika Nagar, Indore - 452 001 (M.P.)

8103898979, 9907136827

ral2021indore@gmail.com

**An ISO 9001:2015 CERTIFIED LAB**

## TEST REPORT

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.		CoA Issue Date	
Hira Power and Steels Ltd. Khasra No. 511/1,512/2,Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2024/OCT/074		26/10/2024	
Name of Manufacturer	Mfg. License No.	Batch No.	Batch Size	Mfg. Date	Start Date & Time	
NA	NA	NA	NA	NA	21/10/202411:30AM Day Time) Night Time 18:00 PM	
Sample Name	Sample ID	Date of Receipt Data	Sample Quantity	Packing	Condition of Sample	Sealed/ Unsealed
Ambient Noise Monitoring	RAL/2024/OCT/074	21/10/2024	NA	NA	NA	NA
Measurement Start Date	21/10/2024		Measurement End Date		21/10/2024	

### Test Details:-

Sr.	Characteristic /Location	Unit	Result Day Time	Result Night Time	Specification Day	Specification Night	Method of Test
1.	Near CHP Area	dB	62.6	60.7	75	70	IS 9989-1981
2.	Beside Silo	dB	60.2	54.8	75	70	IS 9989-1981
3.	Solar Panel Area	dB	63.8	51.2	75	70	IS 9989-1981
4.	Near Main Gate	dB	64.8	49.8	75	70	IS 9989-1981

### Note:

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- Day time shall mean from 06:00 AM to 18:00 & Night time shall mean from 18:00 to 6:00 AM.
- Equipment ID No. RAL/EQ/ID-21,
- The legal liabilities limited up to the analytical charges only.
- This Report in full or in part shall not be used for advertising or as evidence in any court of Law
- Statement or conformity to a specifications is given only on the requests of the customer

**Conclusion:** This report's result is under the specification; Ambient Noise is ok for human health

\*\*\*\*\*

**END OF REPORT**

*Sanjiv*  
Checked by



Authorized Signatory





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LAB**

15, Paricharika Nagar, Indore - 452 001 (M.P.)

8103898979, 9907136827

ral2021indore@gmail.com

**An ISO 9001:2015 CERTIFIED LAB**

## TEST REPORT

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.		CoA Issue Date	
Hira Power and Steels Ltd. Khasra No. 511/1,512/2,Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2024/NOV/036		27/11/2024	
Name of Manufacturer	Mfg. License No.	Batch No.	Batch Size	Mfg. Date	Start Date & Time	
NA	NA	NA	NA	NA	22/11/202410:40AM Day Time) Night Time 18:00 PM	
Sample Name	Sample ID	Date of Receipt Data	Sample Quantity	Packing	Condition of Sample	Sealed/ Unsealed
Ambient Noise Monitoring	RAL/2024/NOV/036	22/11/2024	NA	NA	NA	NA
Measurement Start Date	22/11/2024		Measurement End Date		22/11/2024	

### Test Details:-

Sr.	Characteristic /Location	Unit	Result Day Time	Result Night Time	Specification Day	Specification Night	Method of Test
1.	Near CHP Area	dB	66.2	58.4	75	70	IS 9989-1981
2.	Beside Silo	dB	63.8	57.7	75	70	IS 9989-1981
3.	Solar Panel Area	dB	60.2	49.6	75	70	IS 9989-1981
4.	Near Main Gate	dB	60.4	52.7	75	70	IS 9989-1981

### Note:

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4. Day time shall mean from 06:00 AM to 18:00 & Night time shall mean from 18:00 to 6:00 AM.
5. Equipment ID No.RAL/EQ/ID-21,
6. The legal liabilities limited up to the analytical charges only.
7. This Report in full or in part shall not be used for advertising or as evidence in any court of Law
8. Statement or conformity to a specifications is given only on the requests of the customer

**Conclusion:** This report's result is under the specification; Ambient Noise is ok for human health

\*\*\*\*\*

**END OF REPORT**

*Sauri*  
Checked by



Authorized Signatory



**RELIABLE  
ANALYTICAL  
LAB**

15, Paricharika Nagar, Indore - 452 001 (M.P.)

8103898979, 9907136827

ral2021indore@gmail.com

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## TEST REPORT

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.		CoA Issue Date	
Hira Power and Steels Ltd. Khasra No. 511/1,512/2,Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2024/DEC/0128		24/12/2024	
Name of Manufacturer	Mfg. License No.	Batch No.	Batch Size	Mfg. Date	Start Date & Time	
NA	NA	NA	NA	NA	19/12/202410:20AM Day Time) Night Time 18:00 PM	
Sample Name	Sample ID	Date of Receipt Data	Sample Quantity	Packing	Condition of Sample	Sealed/ Unsealed
Ambient Noise Monitoring	RAL/2024/DEC/0128	19/12/2024	NA	NA	NA	NA
Measurement Start Date	19/12/2024		Measurement End Date		19/12/2024	

### Test Details:-

Sr.	Characteristic /Location	Unit	Result Day Time	Result Night Time	Specification Day	Specification Night	Method of Test
1.	Near CHP Area	dB	62.8	54.9	75	70	IS 9989-1981
2.	Beside Silo	dB	59.6	55.2	75	70	IS 9989-1981
3.	Solar Panel Area	dB	58.7	52.1	75	70	IS 9989-1981
4.	Near Main Gate	dB	63.7	54.8	75	70	IS 9989-1981

### Note:

- The results are related only to the sample tested.
- This report shall not be reproduced without the written approval of RAL.
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- Day time shall mean from 06:00 AM to 18:00 & Night time shall mean from 18:00 to 6:00 AM.
- Equipment ID No.RAL/EQ/ID-21,
- The legal liabilities limited up to the analytical charges only.
- This Report in full or in part shall not be used for advertising or as evidence in any court of Law
- Statement or conformity to a specifications is given only on the requests of the customer

**Conclusion:** This report's result is under the specification; Ambient Noise is ok for human health

\*\*\*\*\*

**END OF REPORT**

*Sunil*  
Checked by



Authorized Signatory



**RELIABLE  
ANALYTICAL  
LAB**

15, Paricharika Nagar, Indore - 452 001 (M.P.)  
8103898979, 9907136827  
ral2021indore@gmail.com

**An ISO 9001:2015 CERTIFIED LAB**

## TEST REPORT

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.		CoA Issue Date	
Hira Power and Steels Ltd. Khasra No. 511/1,512/2,Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2025/JAN/122		29/01/2025	
Name of Manufacturer	Mfg. License No.	Batch No.	Batch Size	Mfg. Date	Start Date & Time	
NA	NA	NA	NA	NA	20/01/202510:45AM Day Time) Night Time 22:10 PM	
Sample Name	Sample ID	Date of Receipt Data	Sample Quantity	Packing	Condition of Sample	Sealed/ Unsealed
Ambient Noise Monitoring	RAL/2025/JAN/122	20/01/2025	NA	NA	NA	NA
Measurement Start Date		20/01/2025		Measurement End Date		20/01/2025

### Test Details:-

Sr.	Characteristic /Location	Unit	Result Day Time	Result Night Time	Specification Day	Specification Night	Method of Test
1.	Near CHP Area	dB	65.4	60.4	75	70	IS 9989-1981
2.	Beside Silo	dB	60.4	54.7	75	70	IS 9989-1981
3.	Solar Panel Area	dB	59.8	53.4	75	70	IS 9989-1981
4.	Near Main Gate	dB	64.3	55.7	75	70	IS 9989-1981

### Note:

- The results are related only to the sample tested.
- This report shall not be reproduced without the written approval of RAL.
- Specification as per MoEF&CC, CPCB, MPPCB.
- Day time shall mean from 06:00 AM to 18:00 & Night time shall mean from 18:00 to 6:00 AM.
- Equipment ID No.RAL/EQ/ID-21,
- The legal liabilities limited up to the analytical charges only.
- This Report in full or in part shall not be used for advertising or as evidence in any court of Law
- Statement or conformity to specifications is given only on the requests of the customer

**Conclusion:** This report's result is under the specification; Ambient Noise is ok for human health

\*\*\*\*\*

**END OF REPORT**

*Sunil*  
Checked by



Authorized Signatory





**RELIABLE  
ANALYTICAL  
LAB**

15, Paricharika Nagar, Indore - 452 001 (M.P.)  
8103898979, 9907136827  
ral2021indore@gmail.com

**An ISO 9001:2015 CERTIFIED LAB**

## TEST REPORT

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.		CoA Issue Date	
Hira Power and Steels Ltd. Khasra No. 511/1,512/2,Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2025/FEB/118		23/02/2025	
Name of Manufacturer	Mfg. License No.	Batch No.	Batch Size	Mfg. Date	Start Date & Time	
NA	NA	NA	NA	NA	18/02/202510:55AM Day Time) Night Time 22:30 PM	
Sample Name	Sample ID	Date of Receipt Data	Sample Quantity	Packing	Condition of Sample	Sealed/ Unsealed
Ambient Noise Monitoring	RAL/2025/FEB/118	19/02/2025	NA	NA	NA	NA
Measurement Start Date	18/02/2025		Measurement End Date		18/02/2025	

### Test Details:-

Sr.	Characteristic /Location	Unit	Result Day Time	Result Night Time	Specification Day	Specification Night	Method of Test
1.	Near CHP Area	dB (A)	66.3	59.6	75	70	IS 9989-1981
2.	Beside Silo	dB (A)	67.2	60.1	75	70	IS 9989-1981
3.	Solar Panel Area	dB (A)	60.2	55.5	75	70	IS 9989-1981
4.	Near Main Gate	dB (A)	69.4	56.7	75	70	IS 9989-1981

### Note:

1. The results are related only to the sample tested.
2. This report shall not be reproduced without the written approval of RAL.
3. Specification as per MoEF&CC, CPCB, MPPCB.
4. Day time shall mean from 06:00 AM to 18:00 & Night time shall mean from 18:00 to 6:00 AM.
5. Equipment ID No. RAL/EQ/ID-21,
6. The legal liabilities limited up to the analytical charges only.
7. This Report in full or in part shall not be used for advertising or as evidence in any court of Law
8. Statement or conformity to specifications is given only on the requests of the customer

\*\*\*\*\*

**END OF REPORT**

*Sunil*  
Checked by



Authorized Signatory



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15, Paricharika Nagar, Indore - 452 001 (M.P.)

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## TEST REPORT

Name & Address of Company/Customer		Work Order No./ Reference No. of Letter	CoA No.		CoA Issue Date	
Hira Power and Steels Ltd. Khasra No. 511/1,512/2,Urla, Industrial Area Raipur CG		7200005648/U102	RAL/2025/MAR/147		29/03/2025	
Name of Manufacturer	Mfg. License No.	Batch No.	Batch Size	Mfg. Date	Start Date & Time	
NA	NA	NA	NA	NA	24/03/202511:20AM Day Time) Night Time 21:10 PM	
Sample Name	Sample ID	Date of Receipt Data	Sample Quantity	Packing	Condition of Sample	Sealed/ Unsealed
Ambient Noise Monitoring	RAL/2025/MAR/147	24/03/2025	NA	NA	NA	NA
Measurement Start Date		24/03/2025	Measurement End Date		24/03/2025	

### Test Details:-

Sr.	Characteristic /Location	Unit	Result Day Time	Result Night Time	Specification Day	Specification Night	Method of Test
1.	Near CHP Area	dB (A)	68.3	61.2	75	70	IS 9989-1981
2.	Beside Silo	dB (A)	64.2	59.8	75	70	IS 9989-1981
3.	Solar Panel Area	dB (A)	62.8	57.4	75	70	IS 9989-1981
4.	Near Main Gate	dB (A)	67.5	58.2	75	70	IS 9989-1981

### Note:

1. The results are related only to the sample tested.
2. This report shall not be reproduced without the written approval of RAL.
3. Specification as per MoEF&CC, CPCB, MPPCB.
4. Day time shall mean from 06:00 AM to 18:00 & Night time shall mean from 18:00 to 6:00 AM.
5. Equipment ID No.RAL/EQ/ID-21,
6. The legal liabilities limited up to the analytical charges only.
7. This Report in full or in part shall not be used for advertising or as evidence in any court of Law
8. Statement or conformity to specifications is given only on the requests of the customer

\*\*\*\*\*

**END OF REPORT**

*Sunil*  
Checked by



Authorized Signatory

**Dr. Shashi Narayan**  
Assistant Professor  
Department of Civil Engineering  
NIT Uttarakhand

राष्ट्रीय प्रौद्योगिकी संस्थान,  
उत्तराखण्ड  
National Institute of Technology,  
Uttarakhand



### **Ash-Disposal Compliance Audit Report for HPSL, Raipur**

#### **Brief:**

The Power plant (AFBC Boiler), Hira Power and Steels Limited, Unit II, Raipur, Chhattisgarh, was inspected and audited for fly ash disposal on 28/11/2024. The plant has a capacity of 20MW. The primary fuel source was Coal blended with Rice Husk. The fly ash generation for 2023-24 was 56,961.67 MT. The ash generated is collected from Economizer, Air preheater, and Electrostatic precipitators (ESP) to the dry silo. The installed capacity of dedicated silo for storage of dry fly ash is 550MT. This is sufficient for the fly-ash-generated for 3 days of operation at peak load.

The fly-ash from silo is disposed of using two methods: Dry-Ash disposal using bulkers and Wet-conditioned fly-ash disposal using dumper trucks. The silo contains two different hoppers to facilitate the above-mentioned methods of disposal. The water conditioning is done using pumps which were installed prior to one of the hoppers. Additionally, there are arrangements made to condition the dumper truck using water and then covering it. The loading, unloading, transport, storage, and disposal of ash is done in an environmentally sound manner and all precautions to prevent air and water pollution are taken.

Bottom-waste is collected directly through hoppers and transported to collection pit for segregation of bottom-ash and further to be disposed of using dumper trucks.

#### **Profile of Company:**

Hira Power and Steel Limited (HPSL) stands as industrial endeavor in Raipur, spearheaded by the Agrawal Family. Specializing in Manganese-based Ferro Alloys, crucial for steel and cast iron melting furnaces, the company was founded in 1986 by Mr. Om Prakash Agrawal. In a strategic move, within a year, the focus shifted from Calcium Carbide to Ferro Alloys production, setting the stage for a transformative journey. Rebranded as "HIRA POWER AND STEELS LIMITED" in 2007, the company's roots trace back to Mr. Agrawal's bold decision to adopt a 2.5 MVA furnace for Ferro Alloys, despite advisory resistance. The success of this venture led to the installation of four additional Ferro Alloys units. Presently, HPSL boasts a manufacturing capacity of 48,000 MT/year of Manganese-based Ferro Alloys and a 20 MW Captive Thermal Power Plant, catering to both domestic and international demands. Guided by Mr. Agrawal's leadership, Hira Power and Steel Limited stands resilient as a prominent force in the Ferro Alloys industry.






### Observations:

1. The records of Fuel consumption (Coal + Rice Husk) was checked from the record and found to be 1,14,888MT. The average ash content in the Fuel from the feed chemical analysis was 35%. Thus the flyash generated as per this data is verified with the data provided in the Fly-ash Annual utilization report for F.Y. 2023-24.
2. The fly ash generated was disposed of using dumper truck to Brick manufacturing industry on daily basis (permitted use). The fly ash utilization data was verified with the dispatch logs of dumper trucks against the data of fly ash generated and found correct.
3. There was no ash-ponds for this plant.

### Suggestions:

It is suggested that since all the present utilization is to nearby brick manufacturing units, other avenues for utilization from permitted use /avenue may be explored like better utilization of ash for road works, land filling of abundant pits so that in a scenario for non-demand from brick manufacturing units for 3-4 days alternative source of supply can be switch over, to avoid in filling up of the dry-silos.

  
(Dr. Amardeep)

  
(Dr. Bibhash Kumar)

  
(Dr. Shashi Narayan)



## फ्लाई ऐश उपयोग हेतु अनुबंध

यह अनुबंध निम्नलिखित पक्षकारों के मध्य आज दिनांक को स्थान उरला, रायपुर (छ.ग.) में फ्लाई ऐश के उपयोग एवं परिवहन के सम्बंध में निम्नानुसार निष्पादित किया जा रहा है :-

हीरा पॉवर एण्ड स्टील्स लिमिटेड,  
उरला इण्डस्ट्रीयल कॉम्प्लेक्स,  
उरला, रायपुर-492003 (छ.ग.)  
फोन नं- +91 771 4082500 / 4082600  
ई-मेल : dpsingh@hpslindia.com  
द्वारा : श्री डी.पी. सिंह, अधिशाषी निदेशक

- प्रथम पक्ष

एवं

श्री गोविंद ब्रिक्स इण्डस्ट्रीज  
तेन्दुआ, रायपुर (छ.ग.)

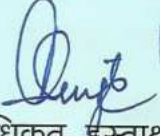
- द्वितीय पक्ष

1. प्रत्येक गाड़ी में राखड़ तिरपाल से ढककर ही परिवहन किया जायेगा।
2. राखड़ उठाने के लिए वाहन का कारखाने के सिस्टम में पंजीयन आवश्यक है।
3. राखड़ का उठाव 24 x 7 किया जायेगा।
4. वाहन का फिटनेस, बीमा चालक का वैध भारी वाहन लायसेंस होना आवश्यक है।
5. वाहन का ड्रायवर स्वस्थ एवं नशा इत्यादि का सेवन करने वाला नहीं होना चाहिए।
6. वाहन का ड्रायवर कारखाने के किसी भी कर्मचारी/अधिकारी से किसी भी प्रकार का विवाद-बहस या गाली-गलौच इत्यादि नहीं करेगा।
7. वाहन का चालक कारखाने में पूर्ण रूपसे अनुशासन में रह कर काम करेगा।
8. वाहन का चालक कारखाने की किसी भी सम्पति को नुकसान नहीं पहुँचायेगा। कारखाने की किसी भी सम्पति की चोरी नहीं करेगा।
9. वाहन एवं चालक के द्वारा कारखाने की किसी भी सम्पति को नुकसान पहुँचाये जाने पर नुकसान का अनुमान लगाया जायेगा एवं नुकसान की क्षतिपूर्ति वाहन मालिक के द्वारा कर दिये जाने पर ही वाहन को कारखाना परिसर के बाहर जाने की अनुमति दी जायेगी।



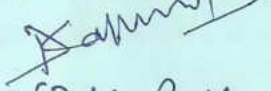
10. वाहन के खराब हालत में होने पर अथवा वाहन चालक को शराब के नशे में पाये जाने पर चालक एवं वाहन को ब्लैक लिस्ट कर प्रवेश वर्जित कर दिया जायेगा।
11. वाहन से रास्ते में फ्लाई ऐश गिरने पर अथवा गिरते हुए जाने पर वाहन को फ्लाई ऐश लोडिंग हेतु प्रवेश नहीं दिया जायेगा।
12. फ्लाई ऐश उठाने वाली परिवहन कम्पनी को ब्रिक्स निर्माता कम्पनी से फ्लाई ऐश की कुल मात्रा ब्रिक्स बनाने में उपयोग की गई है। इस आशय का प्रमाण पत्र हर महीने हीरा पावर एण्ड स्टील्स लिमिटेड में जमा करना होगा।
13. फ्लाई ऐश का परिवहन छ.ग. पर्यावरण संरक्षण मण्डल के द्वारा निर्धारित मानकों के अनुरूप किया जाना अनिवार्य होगा।

प्रथम पक्ष/उत्पादक

  
अधिकृत हस्ताक्षरकर्ता

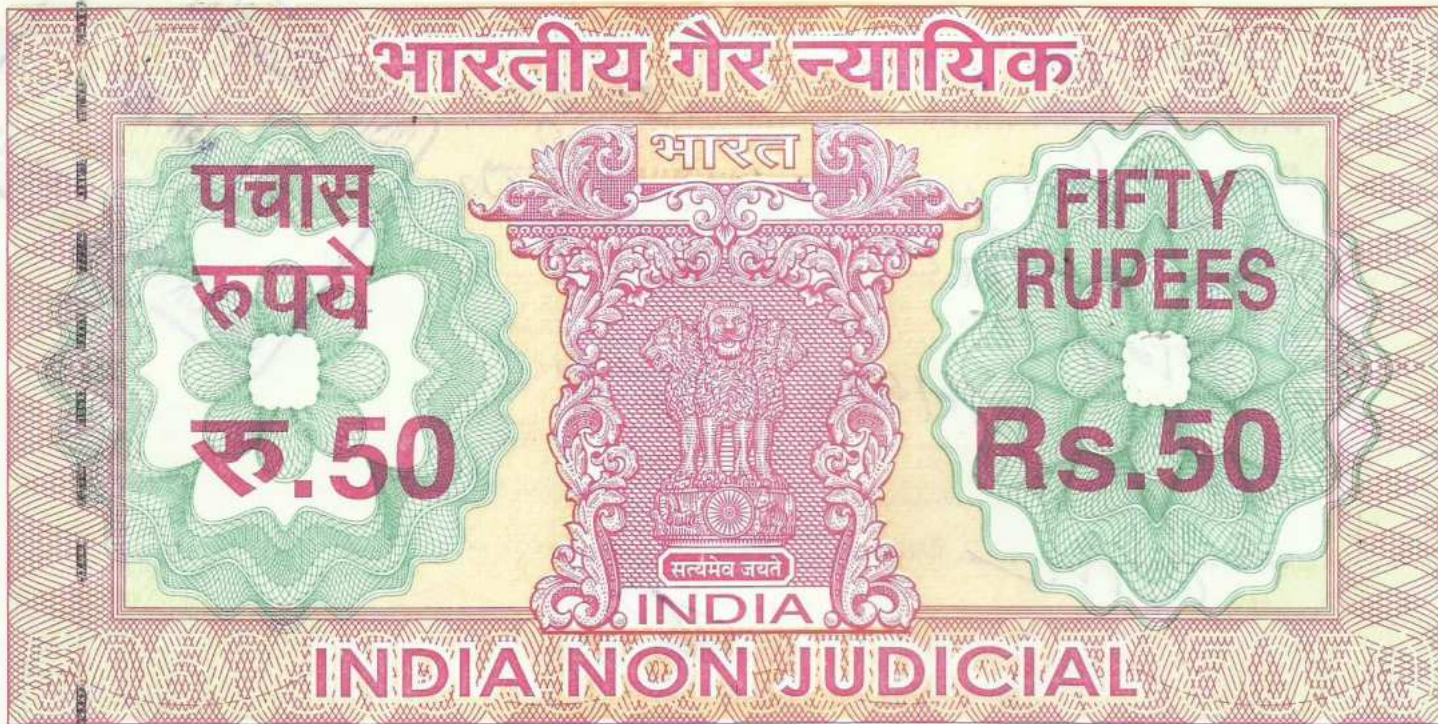


द्वितीय पक्ष/उपभोक्ता

  
(D.K. Rathore)  
अधिकृत हस्ताक्षरकर्ता

साक्षी (1) श्री पी. एल. वर्मा  
(2) श्री अविरल तिवारी





छत्तीसगढ़ CHHATTISGARH

Y 315820

## MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding is made to Operate Bricks Plant at Urla Industrial Area adjacent to Hira Power & Steels Ltd, and signed between:

**M/s. Hira Power & Steels Limited,**

First Part

Plot no.511/1 , 512/2 Urla Industrial Area Raipur (C.G.)  
is a Registered company established under Companies  
Act 1952 (Here in after called "HPSL" Or "Company" )  
Through Mr. D.P. Singh, Executive Director.

And

**M/s. Shree Mahaveer Bricks,**

Behind Om Hospital , Vikas Vihar, Raipura,  
Distt-Raipur (CG) Through Mr. Jitendra Singh Kushwaha,  
Proprietor & Bricks Manufacturer

GST NO.22APUPK0810PIZN, TIN: 22291311311

Second Part

Whereas M/s. Hira Power & Steels Limited intended to establish a Bricks Plant for utilization of its wastes Fly Ash and A.O.D. Slag in manufacturing of Fly ash Bricks and Mr. Jitendra Singh Kushwaha, has expressed his interest by submitting his quotation offer to operate the same in mutual interest and benefit. Both parties have set their hands together on 16<sup>th</sup> day of March 2020 at Urla Industrial Area Raipur and agreed on following Terms And Conditions :-

For, Hira Power & Steels Ltd.

*[Signature]*  
EXECUTIVE DIRECTOR

For, Shree Mahaveer Bricks

*[Signature]*  
Proprietor



**1.0 SCOPE OF WORK:**

Following work will be done by Bricks Manufacturer in his account:

- a) Construction of shed for storage for Bricks and Raw Materials.
- b) Construction of boundary wall or Fencing for his bricks plant security.
- c) Installation of Bricks manufacturing Machines for the capacity of 30,000 bricks per day.
- d) Arrangement of Manpower as per requirement of the bricks plant.
- e) Construction of office and hut mat.
- f) Submission of PDCs for credit of 90 days.
- g) Development of Land and Plantation / Beautification for pollution control.
- h) Accommodation & Transportation: Bricks Manufacturer has to arrange at their own cost and risk.
- i) Storage of all material of Bricks Manufacturer shall be responsibility of Bricks Manufacturer.
- j) Consumption of Fly ash, old used waste Bed material, Jigging Slag, A.O.D Slag from HPSL only.
- k) All Legal Formalities like factory license, Approval of Drawing, CECB Consent, EPF, ESIC, W.C, Labour license and other required approvals from State Govt will be taken by Bricks Manufacturer.
- l) Bricks Plant will run 24 hours a day for production of 7.5 lakh bricks per month.

**2.0 Payment Terms:**

Rent and other charges will be paid on monthly basis to M/s Hira Power & Steels Ltd with in 90 days but this credit facility will be available only on submission of advance PDCs .

**2.1 Labour Wages Payment:**

Bricks Manufacturer will pay wages to his workers at the rates as prescribed by State Government from time to time.

**3.0 Statutory Requirement:**

- 3.1 Bricks Manufacturer will be sole responsible for all statutory liabilities and permissions required to operate a bricks plant like Labour License, EPF, Bonus, Gratuity, ESIC/ Workmen Compensation, Medical Facility, CECB Consent, Factory License ,GST Registration and compliance of provisions of contract labour (R&A) Act, Approval of Town and Country Planning and Municipal Tax and permission of Birgaon Municipal Corporation etc.
- 3.2 In case of any fatal accident occurred to workmen on duty, Bricks Manufacturer will have to borne all medical expenses and compensation of the injured workmen in case of disability/ death.
- 3.3 Minimum age limit for the deployed labour shall be 18 years & maximum age limit shall be 60 Years.
- 3.4 The Bricks Manufacturer shall maintain a daily attendance register including the number and names of the workers engaged in the premises for work.
- 3.5 All legal disputes are subject to Raipur jurisdiction.

For, Shree Mahaveer Bricks

*Nutnoda Singh*  
Proprietor

For, Hira Power & Steels Ltd.

*Ding*  
EXECUTIVE DIRECTOR



#### 4.0 Safety:-

- 4.1 Safety of employee is prime responsibility of The Bricks Manufacturer he will provide all the Personal Protective Equipments to working personnel like Safety Shoes, Helmets, Hand Gloves, Apron and Nose Masks and First-Aid facility etc. Hence All workers shall be registered in EPF & ESIC Scheme without fail.
- 4.2 The Bricks Manufacturer will immediately remove from the work site any workman who may be found to be suffering from infectious disease.
- 4.3 No labour will be allowed to enter in the security gate to report for duty under the influence of drugs, liquor or any intoxicating substance.
- 4.4 The Bricks Manufacturer will ensure that his supervisor must be aware about the safety rules and he should strictly follow the safety procedures.
- 4.5 In case of any accident including Fatal Accident or bodily Injury on duty total responsibility of medical treatment and payment of compensation will be on The Bricks Manufacturer's account. HPSSL shall not be held liable for any responsibility of your worker.

#### 5.0 General Terms & Conditions:-

- 5.1 The persons engaged by you should have Good health and adequate Skills & experience of relevant jobs.
- 5.2 Motor Vehicles used to transport Man power, Materials and Finished product shall be registered in RTO along with its fitness and proper insurance covered.
- 5.3 The Bricks Manufacturer will ensure that no property of the Company will be damaged by Motor Vehicles used to transport Man power, Materials and Finished product. If any damage of company property caused by Motor Vehicles used/engaged to transport of material being used by The Bricks Manufacturer, in such case The Bricks Manufacturer will make the damaged property in good condition or he will pay the cost incurred to make the damaged property in good condition.
- 5.4 The Bricks Manufacturer will also provide to HPSSL a list of all personnel along with photographs with their brief Bio-data, driving license and experience certificate in details (if required to company). Temporary gate pass approved by HR department /CSO to workman will be provided.
- 5.5 The Bricks Manufacturer will ensure that wastage of water and electricity will be strictly restricted in all circumstances.
- 5.6 The Bricks Manufacturer will ensure that fugitive emission of dust, fly ash will be efficiently controlled in bricks plant area. No rainwater and air winds shall be contaminated with highly pollutant material fly ash and AOD slag dust.
- 5.7 The Bricks Manufacturer will ensure that personnel engaged do not cause any damage to Company property. They should maintain absolute discipline while be on duty and other wise. if anyone found breaching/violation of the same shall be replaced immediately.
- 5.8 The Bricks Manufacturer will also ensure that his worker shall not be indulging in any sort of anti social activities like theft, gambling, strike, Dharna, Gherao and fraud against the HPSSL.
- 5.9 Construction / Fabrication of shed shall be done as per the drawings provided To HPSSL Engineer.
- 5.10 This contract will be initially for a period of Three years. Further the contract can be extended for a suitable period as per the discretion and satisfaction of the management.
- 5.11 Company reserves the right to terminate this contract, at any time by giving a notice of 30 days and no compensation will be paid in lieu thereof in case of unsatisfactory performance and violation of terms of contract.

For, Shree Mahaveer Bricks

*Nutnoda Singh*  
Proprietor

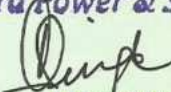
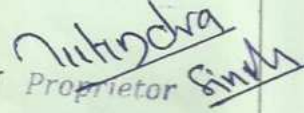
For, Hira Power & Steels Ltd.

*Dimple*  
EXECUTIVE DIRECTOR



- 5.12 If the Bricks Manufacturer wants to rescind the contract voluntarily or otherwise, he is required to give a notice of at least 60 days and clear all dues and liabilities with in this period.
- 5.13 The personnel deployed by The Bricks Manufacturer shall not have any right to claim of jobs in HPSL in any circumstances.
- 5.14 If under any enactment (including rules or regulations included there under) HPSL is held liable to pay any amount to the worker, The Bricks Manufacturer will reimburse the same to the company within a period of 15 days from the date of demand by the company. Demand shall be made in writing. And The Bricks Manufacturer indemnifies and agrees to keep indemnified the company against any such amount and any losses, charges and expenses incurred by the company on account thereof.
- 5.15 If due to any act of commission or omission, misfeasance or nonfeasance of any worker deployed by the Bricks Manufacturer any third party suffers loss or damages the The Bricks Manufacturer will make good the same.
- 5.16 The Bricks Manufacturer shall not assign/ sublet this contract to any other person without the written consent of the HPSL.
- 5.17 This agreement can be terminated by the company or shall deemed to be terminated by the company in any of the following events:-
- If the company terminates the same with or without assigning any reason by giving 30 days notice to the 2<sup>ND</sup> Party in writing as from the date to be specified in the notice.
  - If the Bricks Manufacturer is adjudged insolvent.
  - If the company goes into liquidation voluntarily or through the court.
  - If the contract becomes illegal by virtue of any law.
  - If the authorities cancel the license of the Bricks Manufacturer.
  - If any difference of opinion arises between the company and The Bricks Manufacturer regarding this agreement and the implementation thereof, the decision of the Executive Director of the company shall be final and binding on the 2<sup>ND</sup> Party.
- 5.18 These terms and conditions are subject to changed, modified, amended, altered by Management at any time without assigning any reason.

Whereas parties have set their hands together and accepted all above terms & conditions and signed this memorandum of Understanding in a healthy and peaceful environment with free mutual consent on this 16<sup>th</sup> day of March 2020 at Urla, Dist Raipur (C.G.)

<p>For &amp; on behalf of, <b>HIRA POWER AND STEELS, LIMITED</b> <i>For, Hira Power &amp; Steels Ltd.</i></p> <p> (D. P. SINGH) <b>EXECUTIVE DIRECTOR</b> EXECUTIVE DIRECTOR PARTY NO.1</p>	<p>For &amp; on behalf of, <b>Shree Mahaveer Bricks</b></p> <p><i>For, Shree Mahaveer Bricks</i></p> <p>(Jitendra Singh Kushwaha) Proprietor / Bricks Manufacturer PARTY NO.2</p> <p> <i>Proprietor Singh</i></p>
--	--

Witness 1. Name: Mr. P.L.VERMA, Address: Tarun Nagar Dangania ,Raipur (CG)

Witness 2. Name: Mr. Y.Chandra Kishore. Address: Diksha Nagar, Gudhiyari,Raipur (CG)

*For, Shree Mahaveer Bricks*

*Proprietor*

(22)

## CHAPTER - 7

HAZARDS CONSIDERATION IN OPERATION/ PROCESS/ STORAGE,  
MSDS AND RISK ANALYSIS IN FACTORY

S. No.	OPERATION/ PROCESS EQUIPMENT/AREAS	POSSIBLE HAZARDS	PRECAUTIONARY MEASURES IMPLEMENTED/EXISTING	MEASURES TO BE TAKEN IF MISHAP OCCURS.
01	Submerged Arc and Converting Furnace/LRF / Ladle Preheater	Fire hazard caused by flames Burnt may possible if directly come in contact.	1. Emergency Kit is kept ready and nearer to the Furnace 2. Fire Fighting Equipments powder/foam type extinguishers on vehicle and mounted on walls are kept readily available 3. Hydrant system provided At conspicuous places 4. Fire Fighting man is employed	a) Switch off the System. b) Information is delivered to the Manager/Director present in the Factory. c) First Aid is given to the victim and carrying to Hospital for further treatment. d) In case of any malfunction Furnace get switched off automatically and can be restarted only after removing the faults.
02	Charging of RM, scrap and other material in SA Furnace Converter And Moving Parts of other M/Cs	Cut/Burnt & hazards may possible (In SA Furnace RM Charged after Cheking % of Silica which is only responsible Of Boiling/ Splashing of Molten Mass) (Dust of Mn Coa sand are also harmful)	1. Workers charging the material In the furnace are equipped with Gloves, Nose Mask & proper equipments to handle & feed the Mn, other material, scrap and dust also Fire proof dress & proper equipment to handle the scrap and material 2. Bag Filters/Pollution Control Equipment had Provided to arrest Dust of Material. Use of safety Appliances is must for worker. 3. Fire proof system made available & fire fighting equipments like extinguisher and water hydrant with sufficient No of points easily accessible. 4. Furnace is operated by trained and qualified person	a) If any worker is hurt/ burnt during the process then Information is delivered to the Director/Manager available in Factory. c) Information given to the Doctor fix up by the Managemen d) First Aid is given to the victim by shift in charge/ trained person and then refer to the Doctor for further treat e) Entry of other person is prohibited and proper watch is kept by shift in-charge
03	Tapping of Molten metal In the Ladle/molds Process of casting	Burn due to Hot metal (boiling/splashing) is possible and some time explosion may possible	1. Fire proof system made available 2. Whole Process is operated by trained and qualified person. 3. During tapping entry of other person/worker is prohibited. 4. During the process of Heating & drying entry of other person/ worker is prohibited	a) Complete process is taken up in presence of shift in-charge and by his b) Even after if any worker get hurt then firstly first aid is given to him & then refer to Doctor/ Hospital for further treatment.

S. No.	OPERATION/ PROCESS EQUIPMENT/ AREAS	POSSIBLE HAZARDS	PRECAUTIONARY MEASURES IMPLEMENTED/EXISTING	MEASURES TO BE TAKEN IF MISHAP OCCURS.
04	Shifting of Ladle/moulds by crane and on Track /casted moulds	Serious injury may cause due to movement of moulds laddle by crane if mould are not fastened carefully	1. Laddle/ mould are placed where tapping is done and after tapping shifted to cooling place 2. Proper watches kept by shift In-charge during the process 3. Fastening & loosening of moulds from the crane is done by trained person under the guidance of shift in-charge. 4. Crane is not run till line clear is given.	q) The crane movement is don only after obtaining the line clearance b) If any injury may cause then after giving first aid to person/ worker refer for furthe treatmer to Doctor/Hospital
05.	Diesel Oil Transformer Oil, etc. Storage & Pumping to equipment	Fire hazard may possible if come in direct contact with fire.	A Fire proof system Made available like Foam extinguishers And hydrant System etc. keep Accessible. B. Stored in MS cylinder tank & kept away from any type of fire causing things.	Proper care to be taken in storing and keeping the drum of oil.  Precautions should be adopted and taken as mentioned in chapter-8
06.	Welding Gas like Oxygen, Acetelen, LPG etc. And Liquid Oxygen & Argon in Builet	Fire hazard Caused by flames & leakage On inhalation Cause damage of Nosal system & lungs	1. Emergency Kit is kept ready and nearer to the Storage of cylinders 2. Fire Fighting Equipments powder/foam type extinguishers on vehicle and mounted on walls are kept readily available 3. Hydrant system provided At conspicuous places 4. Fire Fighting man is employed 5. precautions to ensure that cylinders are not allowed to clash with each other. 6. Cylinders are handled carefully without dropping or rolling 7. Sand bed cushion available for the purpose of unloading cylinders and point of transferring 8. Periodic inspection done to avoid accident of any kind.	Emergency kit is kept ready which consisting of:- 1.Tools for stopping leakage through storage tank/pipe line. 2.Self contained breathing apparatus Must be provided 3.Detector solution to detect percentage of leakage (available at site). 4. Installation ofInert gas (Nitrogen CO <sub>2</sub> ) equipments to take care of Fire hazards in the factory is being installed. 5 Hydrant point has been provided at the proximity of gas cylinders and also be kept Out side the factory too.



S. No.	OPERATION/ PROCESS EQUIPMENT/ AREAS	POSSIBLE HAZARDS	PRECAUTIONARY MEASURES IMPLEMENTED/ EXISTING	MEASURES TO BE TAKEN IF MISHAP OCCURS.
07.	Water Cooling Pond/cooling Tower	Drowning of a man possible. Burnt due to returning hot water may possible	A .Cooling pond should be fenced or covered. B.Workers must not be permitted for using the water pond for general utility. Railings are provided all round the tank	Drowned person should immediately be given first -Aid/CPR b) If any injury may cause th after giving first aid to person worker refer for furthe treatm to Doctor/Hospital
08.	Lab chemical like ammonia Sulphuric acid, HCL etc.	In case of breakage cause burns and damage to respiratory system	1. Proper care taken to store/ handle chemicals 2. Fire fighting equipments like extinguishers, sand bucket etc, keep available 3. First Aid box keep available at site.and First Aid personnel are employed.	Instructions are to be displayed for the knowledge other man to take care of the situation in the event of occurrence. (See Annexure '1')
09.	Control Rooms	Electrical shock Possible due to leakage.	A.Earth leakage Circuit breaker is installed. B. Shock precaution & treatment chart are displayed. C. Operater should Be provided with Insulated shoes. D. All instruments are properly Earthed. E. Electrification Layout & diagram is displayed.	In the event of electric leakage main supply should be immediately shut off. Shock Treatment & medical Aid shall be immediately provided.
10.	E.O.T. Crane	Hoist Rope Breakage possible.	A.No movement of Strange people in Crane bay will be Permitted. B. Frequent check of The rope and other Load bearing Material shall be Done. C. Light indication Movement of crane Shall be provided. D. Prescribed load Shall only be Allowed. E. Crane operator to Give alarm before Movement.	Weak rope shall be immediately replaced.

**02. POWER PLANT DIVISION**

<b>S. No. (01)</b>	<b>OPERATION/ PROCESS EQUIPME- NT/AREAS (02)</b>	<b>HAZARDS IDENTIFICATI ON (03)</b>	<b>CONTROL MEASURES (IMPLEMENTED/EXISTING ) (04)</b>	<b>MEASURESTO BE TAKEN (NORMALLY ADOPTED OR IF MISHAP/ HAZARDS OCCURS.) (05)</b>
1.	FBC Boiler Turbo Generator	Leakage of CO gas.  Fire hazards.	CO gas detector are installed to detect the leakage as it is poisonous gas. Due to leakage of oil or electrical short circuit.	Any case of poisoning CO gas will be given initiate first health treatment. The cause of CO leakage will be detected and eliminated/ rectified. The system will be shut down and will electrically disconnected till the complete remedy.
2.	Handling Storage and Feeding of Steam coal/ coal etc.	Fire hazards caused by flames if it come in direct contact with fire.  (Coal, Sand & other Material dust)	1.Workers charging the material in the furnace are equippedwith Gloves, Nose Mask & proper equipments to Handle & feed the Coal and other material, also Fire proof dress & proper equipment to handle the scrap and material 2 Fire fighting equipments power/ foam type extinguishers on vehicle and mounted on walls are kept readily available. 3) Hydrant system provided at conspicuous places. 4) Precautions to ensure that storage is done of above maintained material are in proper way and at proper place away from electric installation.	a) Installation of inert gas (Nitrogen, Carbon Dioxide) equipments to take care of fire hazards in the factory area is being installed. b) Hydrant point has been provided at the proximity of gas cylinders, Husk and coal storage and are kept outside the main factory. c) All precautionary measures to be adopted and taken as mentioned in Chapter-8 d) Un burnt heap/stack will be removed and carry away from fired area.
3.	Leakage of steam /Ash (Hot) from Pipe Line/ Boiler/ Ash Silo	Leakage of Steam/Ash may cause superficial burn if victim directly come in contact	Emergency kit is kept ready which consisting of – a. Tools for stopping leakage through boiler/silo and pipe line. b. All the pipeline has covered with insulators/ piping. c. Detector solution to detect percentage of leakages (available at site).	a) Precautionary measure to be taken up as mentioned in Chapter-8. b) Ammonia touch is used to find out the leakage. c) In the event of major leakage the production of steam /Ash Transferring to silo or to bulker will stopped and maintenance of leakage point may carry quickly.
4.	Control Rooms	Electrical shock possible due to -	a) Earth leakage circuit breaker is installed. b) Shock precaution and treatment chart are displayed. c) Operator should be provided with insulated shoes. d) All instruments are properly earthed. e) Electrification layout and diagram is displayed.	In the event of electric leakage main supply should be immediately shut off. Shock treatment and medical aid shall be immediately provided.  Lightening Arrester Provided

<b>S. No.</b> <b>(01)</b>	<b>OPERATION/ PROCESS EQUIPME-NT/AREAS</b> <b>(02)</b>	<b>HAZARDS IDENTIFICATION</b> <b>(03)</b>	<b>CONTROL MEASURES (IMPLEMENTED/EXISTING)</b> <b>(04)</b>	<b>MEASURES TO BE TAKEN (NORMALLY ADOPTED OR IF MISHAP/ HAZARDS OCCURS.)</b> <b>(05)</b>
5.	Water cooling pond/ tower	Drowning of a man possible.  Burnt due to returning hot water may possible.	a) Cooling pond should be fenced or covered. b) Must not be permitted for using the water pond for general utility.  All workers are not permitted to the tank & hot water line. Railings are provided all round the tank. Victim are First Aided by trained person and then carried to Doctor.	Drowned person should immediately be given first aid.  Even after, if any worker get hurt then firstly First Aid is given to him and then refer to Doctor/ Hospital for further treatment.
6.	Diesel Oil, TG Oil, Transformer oil etc.	Fire hazard may possible if come in direct contact of fire.	Fire proof system made available and fire fighting equipments like Foam Extinguishers and hydrant system etc. keep accessible.	Proper care is to be taken in storing and keeping the drum of oil. Precautions should be adopted and taken as mentioned in Chapter-8.
7.	Boiler, Dryer Generator, compressor, process tank/ Vat and other machines.	Hurt may possible if come in contact with any moving part.	All machines are compact and whole process is done under consistent watch of supervisors and by adopting all safety precaution and measures. All workers are not permitted to come nearer to the machines. Safety guards and railings are provided all round the machines. Victim are First Aided by trained person and then carried to Doctor.	Even after if any worker get hurt then First Aid is given to him and if hurt is serious then refer to the Doctor/ Hospital for further treatment and checkup.
8.	Handling of Acid and Chemical etc.	Hurt and minor injury may possible.	a) Workers are provided with gloves, shoes and proper equipments to handle the scrap at the time of unloading and charging to Vat/ Tank. b) Transferring of Caustic Soda from lorry to tank and then to reaction Vat is done by pumping and under direct supervision of Officer In-charge. c) Entry of other person is prohibited and proper watch is kept by Officer In-charge.	If any worker is hurt during the process – 1) Information is delivered to the Director/ Manager available in Factory. 2) First Aid is given to victim and if hurt is serious then refer to doctor/hospital for further treatment and checkup.
9.	Laboratory chemicals, Ammonia, Sulphuric Acid, HCl etc.	In case of breakage cause burns damage to respiratory system due to concentrated inhalation.	a) Proper care taken to store/ handle chemicals. b) Qualified and trained personnel are employed. c) First Aid Box available at site. d) Fire fighting equipments readily available at site.	Instruction Board to be displayed for the knowledge of other man to take care of the situation in the event of occurrence (as shown in Annexure-A)















**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-EMPLOYMENT & PERIODIC MEDICAL EXAMINATION**

**Registration No : 604**

**Date : 20-03-2024**

Name : ABHIJEET SHARMA

Age (Years): 27

Gender : Male

Nature of Employment :

Employee No. : 2512

Date of Joining :

Last Medical Date :

Department : ADMIN

Designation : ADMIN

No. of Working Year : Previous Working :

Mobile No. :

ESIC Number :

Aadhar No. :

**1. GENERAL EXAMINATION**

HEIGHT : 169 cm	WEIGHT : 74 Kg	BMI : 25.91
CHEST INSPIRATION : 91 cm	EXPIRATION : 96 cm	BUILT : Average
THROAT : Normal	THYROID :	LYMPH NODES :
TONGUE : Normal	TEETH : Normal	GUMS : Normal
TONSILS : Normal	ADDITIONAL FINDING IF ANY : Absent	

**2. CARDIO-VASCULAR SYSTEM**

PULSE : 80/min Regular	PERIPHERAL PULSE : Felt
BP : 123/86 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 : Not Palpabel	SPLEEN : Not Palpabel
ANY ABDOMINAL LUMP : Absent	

**5. EXAMINATION OF EYE**

EXTERNAL EXAMINATION SQUINT : Normal	NYSTAGMUS : Normal
COLOUR VISION : Normal	FUNDUS : Normal
INDIVIDUAL COLOUR IDENTIFICATION : Normal	
<b>DISTANT VISION (WITHOUT GLASSES)</b>	<b>NEAR VISION (WITHOUT GLASSES)</b>
RIGHT : 6/6 LEFT : 6/6	RIGHT : N/6 LEFT : N/6
<b>DISTANT VISION (WITH GLASSES)</b>	<b>NEAR VISION (WITH GLASSES)</b>
RIGHT : LEFT :	RIGHT : 6/6 LEFT : 6/6

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

**7. GENITO URINARY SYSTEM**

HERNIA : Absent	HYDROCELE / VERICOCELE : Absent	CRYPTORCHISM : Absent
PHIMOSIS : Absent	VARICOSE VEIN : Absent	SIGNS OF STD : Absent
<b>OTHER EXAMINATION FOR FEMALES : MENSTRUAL HISTORY OBSTETRIC HISTORY</b>		
MENARCHE AT : YRS :	GRAVIDA :	PARA :
LMP :	MENSTRUAL IRREGULARITY IF ANY :	



**INVESTIGATION****8. LAB INVESTIGATION :**

HEMOGRAM	LIPID PROFILE	HEPATIC PROFILE
HB : 13.9 gm %	Cholesterol : 141.0 mg/dl	Bilirubin : (Total) 0.25 mg %
TLC : 9500 cmm	Tryglyceride : 102.0 mg/dl	Bilirubin (Direct) : 0.10 mg %
DLC : P 70 L 28 E 01 M 01 B 00	HDL : 53.0 mg/dl	Bilirubin (Indirect) : 0.15 mg %
RBC : 5.2 million/cmm	LDL : 67.60 mg/dl	SGOT : 16.0 IU/L
Platelet : 258 lacs/cmm	VLDL : 20.40 mg/dl	SGPT : 24.0 IU/L
ESR : 05 mm/hr	CHO:HDL :	ALK PHOS 55.0 IU/L
Blood Group : O+ RH Type : Positive		
METABOLIC	OTHER INVESTIGATION	URINE EXAMINATION
B. Sugar (F) : 72.0 mg/dl	Anti HIV 1 & 2 :	Urine Albumin : Nil
B. Sugar (PP) : 102.0 mg/dl	HBsAg :	Urine Sugar : Nil
Uric Acid : 3.7 mg/dl	Anti HCV :	Microscopy : Nil
Blood Urea : 20.0 mg/dl	Syphilis :	
SR CREAT : 0.69 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.) : MILD FATTY LIVER. REST NIL SIGNIFICANT.
- d. Others :

**10. PULMONARY FUNCTION TESTS :**

	FVC	FEC 1	FEC1/FVC
Predicted			
Measured			
% of Predicted	124	145	117

**11. AUDIOMETRY EXAMINATION : Normal**

THRESHHOLD IN dB	RIGHT	LEFT
AIR CONDUCTION	20	17
BONE CONDUCTION		
SPEECH		

**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.

Remarks : MILD FATTY LIVER. REST NIL SIGNIFICANT.

**DR. PAVAN K. GAUTAM**  
M.D. (PHYSICIAN)  
Reg. No - CGMC/5635

Signature (with date) of factory medical officer

Signature (with date) of certifying surgeon









## Environment Policy-Hira Power and Steel Limited

HPSL believe that businesses are responsible for achieving good environment practices and operating in a sustainable manner.

We are therefore committed to reducing our environmental impact and continually improving our environmental performance as an integral and fundamental part of our business strategy and operating methods.

It is our priority to encourage our customers, suppliers and all business associates to do the same. Not only is this sound commercial sense for all; it is also a matter of delivering on our duty of care towards future generations.

### **Our policy is to**

- Wholly support and comply with or exceed the requirements of current environmental legislation and code of practice.
- Minimize our waste and then reuse or recycle as much of it as possible.
- Minimize energy and water usage in our building, vehicles and processes in order to conserve supplies, and minimize our consumption of natural resources, especially where they are non-renewal.
- Operate and maintain company vehicles(where appropriate) with due regard to environmental issues as far as reasonably practical and encourages the use of alternative means of transport and car sharing as appropriate.
- Apply the principal of continuous improvement in respect of air, water, noise and light pollution from our premises and reduce and impacts from our operations on the environment and encourage others to do the same.
- As far as possible purchase product and services that do the least damages to the environment and encourage others to do the same.
- Assess the environmental impact of any new processes or products we intend to introduce in advance.



  
Executive Director

**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**





**EXTRACT FROM THE MINUTES OF THE MEETING OF THE BOARD OF DIRECTORS OF M/S HIRA POWER AND STEELS LIMITED HELD ON 22.03.2024 AT THE REGISTERED OFFICE OF THE COMPANY AT KHASRA NO. 511/1, 512/2, URLA INDUSTRIAL AREA, RAIPUR (C.G)**

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**APPROVAL OF ENVIRONMENT POLICY:**

A draft Environment Policy of the Company with an aim to reduce our environmental impact and continually improving our environmental performance as an integral and fundamental part for our business strategy and operational methods has been placed before the Board.

The Board after detailed deliberations approved the Environment Policy and passed the following resolution:

**“RESOLVED THAT** the Environment Policy with an aim to reduce our environmental impact and continually improving our environmental performance as an integral and fundamental part for our business strategy and operational methods of the Company as per the draft placed before the Board be and is hereby approved to be adopted by the Company.”

**For, HIRA POWER AND STEELS LIMITED**

A handwritten signature in black ink, consisting of a stylized 'U' followed by a wavy line.

**DIRECTOR/ AUTHORISED SIGNATORY**

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**Hira Power & Steels Limited**

An ISO 9001:2015 certified company

CIN : U24117CT1984PLC002512

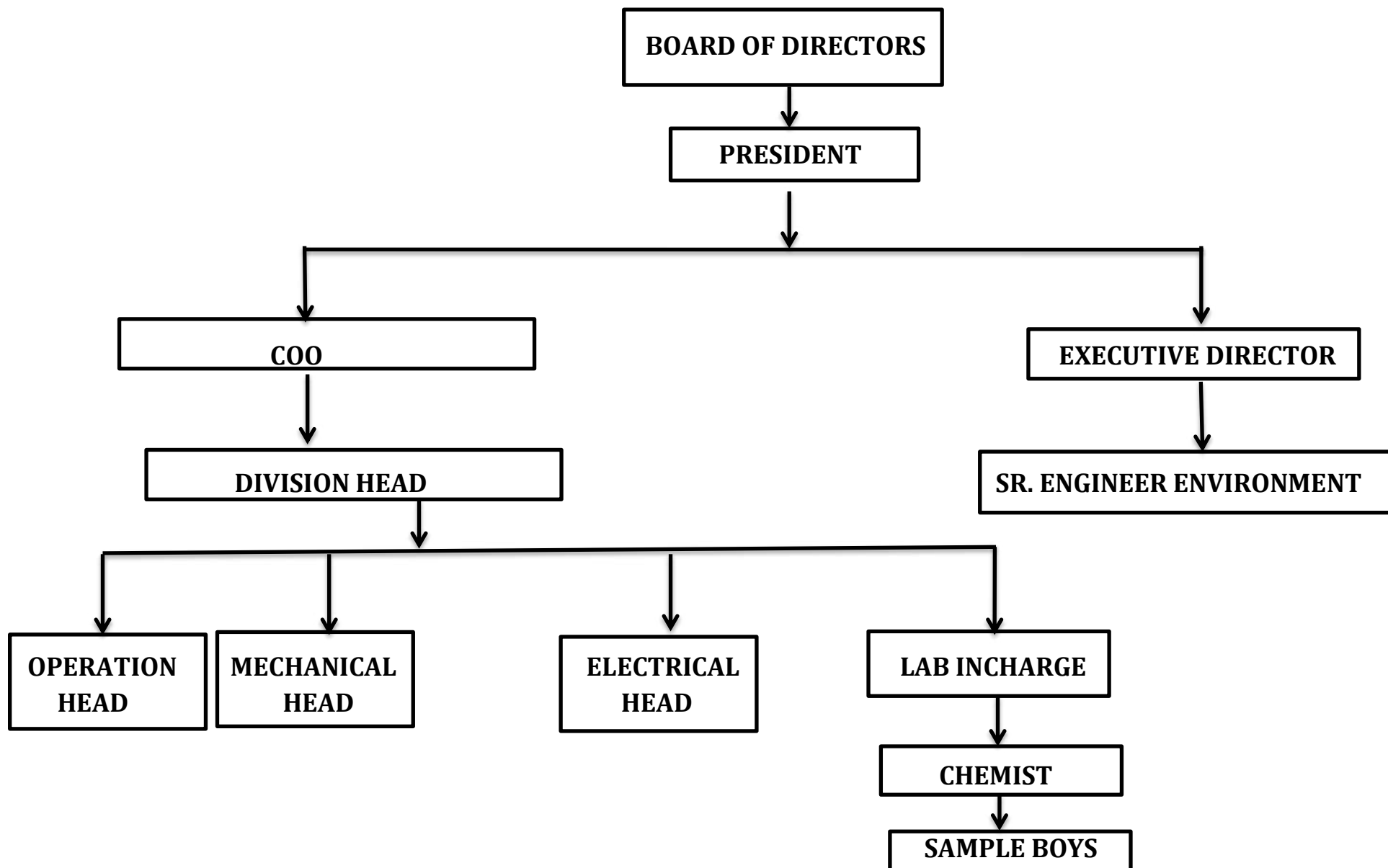
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# HIRA POWER AND STEELS LIMITED (HPSL)

## ORGANISATION CHART OF ENVIRONMENT MANAGEMENT CELL







FROM THE FRONT PAGE

CM Sai-led BJP Govt...

farmers, landless labourers, and tribals, he said.

"Humne banaya hai, Hum hi sawaareenge, we have drafted 10 Fundamental Strategical Pillars which will assist us to achieve our midterm & long term goals by 2047," he added. With a total estimated income of Rs 1,47,500 crore, representing a growth of 22 per cent from the previous year, the Budget forecasts a corresponding increase in total expenditure to Rs 1,47,446 crore. Notably, revenue expenditure for the fiscal year 2024-25 is projected at Rs 1,24,840 crore, with a significant allocation of Rs 22,300 crore towards capital expenditure, reflecting a 20 per cent increase.

Highlighting the Government's commitment to prudent fiscal management, the Budget forecasts a revenue surplus of over Rs 1,060 crore, while the fiscal deficit is expected to stand at -Rs 16,296 crore, representing -2.90 per cent of the GDP. The allocation of funds reflects a strategic approach to address key sectors, with significant provisions for education, agriculture, infrastructure, healthcare and rural development.

Key allocations include Rs 21,489 crore for the School Education Department, Rs 1,333 crore for Higher Education and Rs 690 crore for Skill Development, Technical Education, and Employment. Additionally, substantial sums have been earmarked for Agriculture Development and Farmer Welfare, Food and Civil Supplies, and Panchayat and

Rural Development, among others.

Rs 13,435 crore will be allocated to Agriculture Development and Farmer Welfare Department, Rs 6,428 crore to Food and Civil Supplies Department, Rs 620 crore to Animal Husbandry and Dairy Department and Rs 237 crore to Fisheries Department. Rs 17,529 crore will be allocated to Panchayat and Rural Development Department and Rs 266 crore to Village Industries Department. Rs 8,017 crore will be allocated to Public Works Department. Rs 5,048 crore to Public Health Engineering Department and Rs 3,166 crore, Rs 7,552 crore to Public Health and Family Welfare Department, Rs 2,663 crore to Water Resources Department, Rs 8,009 crore to Energy Department, Rs 7,570 crore to Home Department, Rs 6,044 crore to Urban Administration and Development Department, Rs 5,683 crore to Women and Child Development Department, Rs 3,281 crore to Forest Department and Rs 2,953 crore to Tribal Development Department.

A notable aspect of the Budget is the emphasis on leveraging digital technologies to enhance administrative efficiency and transparency. With a provision of Rs 266 crore allocated for digital advancements and IT-enabled services, the government aims to streamline administrative processes from the state headquarters to the grassroots level.



President Droupadi Murmu presents a certificate to a graduating student during the 62nd convocation of ICAR-Indian Agricultural Research Institute, in New Delhi on Friday. Union Minister of Tribal Affairs Arjun Munda is also seen. (ANI)

Sitting MLA from Telkoi, Premananda Nayak quits BJD

BHUBANESWAR, Feb 9 (IANS)

IN A jolt to the ruling Biju Janata Dal (BJD), former minister and sitting MLA from Telkoi, Premananda Nayak has resigned from the primary membership of the party.

"I am resigning from the primary membership of 'BIJU JANATA DAL.' A valuable time, that I spent with you will inspire me to serve my constituency better," Nayak wrote in a letter addressed to BJD President and Chief Minister Naveen Patnaik here. Nayak on Friday said that he was being sidelined in the party for the last few years.

96.88 crore people registered to vote for 2024 Lok Sabha election, says EC

NEW DELHI, Feb 9 (ANI)

THE Election Commission (EC) on Friday announced that 96.88 crore people are registered to vote for the forthcoming General Elections, marking it the largest electorate.

It also added over two crore youth electors in the age group of 18 to 29 years have been added in the voters' list.

After a months-long intensive Special Summary Revision 2024 exercise and ahead of the General Elections 2024, the Election Commission of India has published the electoral rolls in all States/UTs across the

President calls for more action to lift farmers out of poverty

NEW DELHI, Feb 9 (PTI)

PRESIDENT Droupadi Murmu on Friday called for more action to lift some farmers out of poverty and ensure right price for their produce even as the Government is making speedy efforts to boost their income.

The comments came against the backdrop of thousands of farmers from Delhi-NCR region taking to the streets seeking hiked compensation for lands acquired by the Government and for accepting several demands, including enactment of a law to guarantee a minimum support price (MSP) for crops on Thursday.

Addressing the 62nd convocation of ICAR-Indian Agricultural Research Institute (IARI) here at Pusa complex,

Murmu said farmers are not only "annadata" but also "jeevavandata" who are contributing in making the country's economy strong.

"We are aware of problems faced by our farmers. Even today, many farmers are living in poverty. To ensure they get the right price (for their produce) and improve their livelihood, we need to work even harder in this direction," Murmu said. She expressed confidence that farmers will see the development as the country becomes a developed nation by 2047.

Stating that the Government is making speedy efforts to boost the farmers' income, the President said promotion of new farm methods, expansion of irrigation facilities and

schemes like crop insurance, soil health card and Kisan Sampada Yojana -- all this will play a big role in doubling farmers' income. She stressed the importance of improving the livelihood of the farming community citing famous quotes of Mahatma Gandhi and Rabindranath Tagore.

Highlighting the contribution of IARI in the farm sector, the President said the institute has contributed for achieving the food security of the nation while appreciating initiative 'Mera Gaon, Mera Gaurav' (My Village, My Pride). She said different schools under IARI are working towards improving agriculture. It has developed more than 100 crop varieties and patented the same number between 2005 and 2020.

Crime Branch forms 2 teams to probe murder of Ghosalkar

MUMBAI, Feb 9 (PTI)

THE Crime Branch of Mumbai police has formed two teams to probe into the sensational murder of Shiv Sena (UBT) leader Abhishek Ghosalkar during a 'Facebook Live' by a local 'social activist', who also killed himself, an official said on Friday. One team headed by an inspector-rank official is investigating the murder of Ghosalkar, while the second team is probing into the "accidental" death of his killer Mauris Noronha, he said.

The Crime Branch probe will focus on several aspects,

including how Noronha got the weapon and who provided it to him, if he was under the influence of alcohol at the time and the questioning of people who were present at the spot when Ghosalkar was fired upon, he said. A viral video of the incident, which took place at assailant Mauris Noronha's office in IC Colony in the northern suburb of Borivali (West) on Thursday evening, showed Ghosalkar being shot in the abdomen and shoulder.

**KILLER HELD GRUDGE, USED BODYGUARD'S PISTOL TO COMMIT CRIME: A BODYGUARD** of Mauris Noronha,

who killed Ghosalkar during a 'Facebook Live' before taking his own life, has been detained by the Mumbai Crime Branch and is being questioned, an official said on Friday.

The pistol used by Noronha belongs to his bodyguard Amarendra Mishra. The weapon was made at an ordinance factory and its licence is in Mishra's name, he said.

Crime Branch officials have started questioning Mishra in this connection, he said.

The police have recorded the statements of Noronha's family members, including his wife, and learnt that he nursed a

grudge against ex-corporator Abhishek Ghosalkar, son of former MLA Vinod Ghosalkar and a loyalist of the Uddhav Thackeray-led Sena (UBT).

Noronha, who faced many cases, was earlier arrested in a rape case and spent nearly five months behind bars.

**GHOSALKAR'S MURDER DUE TO 'GANGWAR' WITHIN SENNA (UBT), SAYS UDAY SAMANT:**

Industries Minister Uday Samant on Friday condemned the shocking murder of Shiv Sena (UBT) leader Abhishek Ghosalkar but attributed it to the ongoing 'gang war' with the Uddhav Thackeray-led party.

SC judge recuses himself from hearing plea for allocation of funds for MGNREGA

NEW DELHI, Feb 9 (PTI)

SUPREME Court judge justice P S Narasimha on Friday recused himself from hearing a plea filed by a political party seeking a direction to the Centre to ensure that states have adequate funds to implement the rural employment guarantee scheme, MGNREGA.

The matter came for hearing before a bench comprising Justices P S Narasimha and Aravind Kumar. As the case came on board,

Justice Narasimha said he has appeared in the matter as a lawyer and the matter will have to be placed before the Chief Justice D Y Chandrachud for constitution of a fresh bench.

Justice Narasimha was elevated to the Supreme Court from bar on the recommendation of the collegium. Advocate Prashant Bhushan appeared for the petitioner party.

Swaraj Abhiyan, in its fresh plea, submitted that there is currently a grave crisis being faced by crores of workers under the

Mahatma Gandhi National Rural Employment Guarantee Act, 2005 (MGNREGA) in the country, with their pending wages piling up along with negative balances in most of the States.

As of November 26, 2021, State Governments are facing a shortage of Rs 9,682 crore and 100 per cent of the allocated funds for the year have been exhausted before the conclusion of the year, it said. This is despite this excuse of shortage of funds being a gross violation of the law, it said and referred to the apex court judgement on MGNREGA wage payments.



Family members, relatives and supporters of Abhishek Ghosalkar during his funeral procession in Mumbai on Friday. (PTI)

Violent protest in Sandeshkhali demanding arrest of absconding TMC leader in WB

BARASAT (WB), Feb 9 (PTI)

PEOPLE agitated in Sandeshkhali in North 24 Parganas district on Friday, demanding the arrest of absconding TMC leader Sheikh Shajahan and his aides.

With sticks and brooms in their hands, locals took out processions in different areas of Sandeshkhali as protests intensified on the second day.

On Friday afternoon, Shajahan's aide Shiboprasad Hazra's house was vandalised and some furniture was torched, police said. A poultry farm in Zeliakhali belonging to Hazra was also set ablaze, they

Locals began a sit-in outside the Sandeshkhali police station, stating that it would continue till Shajahan and his aides were arrested

said. Superintendent of Police Hossain Mehedi Rahaman said forces were sent to the area and working to tackle the situation.

He said a complaint was lodged by the villagers against Shajahan and his aides on Thursday, and it was being looked into. Searches were on for them, the SP said.

Addressing a press conference, Additional Director-General (Law and Order) Manoj Verma urged people not to take

the law into their own hands.

"Investigation is underway into all complaints that have been lodged and action will be taken. At the same time, if someone takes up the law into their hands, the law will take its own course. The situation is at present under control," he said.

Meanwhile, the locals began a sit-in outside the Sandeshkhali police station, stating that it would continue

till Shajahan and his aides were arrested.

Shajahan went missing last month after a team of the Enforcement Directorate (ED) that went to raid his house in the alleged ration scam was attacked by a mob.

Locals alleged that Shajahan and his "gang" captured swathes of land by force, besides torturing people during their "reign".

Meanwhile, Shajahan's supporters also took to the streets, and police said they were trying to prevent a clash. The TMC claimed that the BJP and CPI (M) were inciting the people to foment unrest in the area.

Snapchat faces major outage globally, including India

NEW DELHI, Feb 9 (IANS)

POPULAR social media platform Snapchat on Friday suffered a major outage globally, including in India, with users reporting that they were unable to send messages, including texts and snaps, to each other.

According to the outage monitor website DownDetector, over 76 per cent of people reported problems while using the application, 19 per cent with login, and 5 per cent while using the website.

Numerous users went on to X and Reddit to report the issue.

**NOTICE**

Hira Power and Steels Limited, situated at khasra No. 156, 500, 508,509,510,511/1,511/2,512/1, 512/2,513/1-513/5 and others, Urla Industrial Area, Raipur, Chhattisgarh has been granted Environment Clearance for Expansion of manufacturing of Ferro Alloys from 48,000 TPA to 64,000 TPA by the Ministry of Environment, Forest and Climate Change vide their Letter No. IA-J-11011/836/2008-IA-II-(IND-I) Dated 05/02/2024. Copy of Environment Clearance is available at <http://parivesh.nic.in>, Portal of Ministry of Environment, Forest and Climate Change, Government of India and at the website of the Company i.e. <http://hpslindia.com>.

**Hira Power and Steels Ltd.**  
Khasra No. 511/1,512/2 and others, Urla Industrial Area, Raipur - 492003 (Chhattisgarh)

**PUBLIC NOTICE**

Under the instruction from my client namely Smt. Priya Tiwari W/o Sanjiv Kumar Tiwari R/o Gautam vihar, Dayapur, Raipur, Tehsil - &, District - Raipur (C.G.), issuing the following publication as the Land/property vide Khasra No. 9/162 (A part of previous Kh. No. 9/10), Total Area 0.005 Hec. (510 Sqft.), Situated at Birgoan, Metal Park Ward No. 09, P.C. No. 88, R.I.C. Dharasia-1, Tah. - Raipur, Dist. Raipur, Dist. Raipur (C.G.) that the previous title deed (Seller-Avadhesh Jha S/o C.M. Jha & Purchaser-Atish Kumar Varma S/o Ganesh Ram Varma) vide sale deed as Vol. No. 48714, Si. No. 5835 (KH), Page No. 19 to 28, dated 02.11.2010, SRO Raipur. The said deed date 02.11.2010 is lost/misplaced by Smt. Priya Tiwari W/o Sanjiv Kumar Tiwari from her house. If any person found the above said title deed, may return the same by way of registered post, to address given below or inform undersigned by telephone. In case any persons/Financial Institution having any claim/interest in respect thereof by way of sale, exchange, gift, mortgage or any objection, please be inform the same in writing to the undersigned in the below mentioned address within 7 days from the date of publication, with relevant documents in support of their claim/objection. If I have not received any objection within the stipulated days, beyond that on claim is entertained or binding on my client.  
Date: 08/02/2024

**Ravikant Seth**  
Advocate  
Near of Gandhi Chowk  
Gobra Nawapara (Rajm)  
Distt. - Raipur (C.G.) 493881  
Mob.: 9826641364

**कुशाभाऊ ठाकरे पत्रकारिता एवं जनसंचार विश्वविद्यालय, रायपुर (छत्तीसगढ़)**

क्र.- 1821/स्था./सुरक्षा-व्यवस्था/24  
रायपुर, दिनांक : 09/02/2024

**सुरक्षा व्यवस्था निविदा**

सुरक्षा व्यवस्था 2024-25 हेतु पंजीकृत सुरक्षा एजेंसी से पंजीकृत डॉक/स्पीड पोस्ट से मुहरबंद निविदाएं आमंत्रित की जाती है। निविदा प्रपत्र राशि 5,000/- रु. शर्त एवं विस्तृत जानकारी वेबसाइट [www.ktujm.ac.in](http://www.ktujm.ac.in) से डाउनलोड करें।

HTR/CGS-39609/10.02.24

**कुलसचिव**

**भारतीय खाद्य निगम**

**FOOD CORPORATION OF INDIA**

Regional Office : Vidhan Sabha Road, Kapa, Post - Pandri, Raipur (C.G.) 492005, Ph : 0771-2972740, Email : [gmcg.fcil@ggov.in](mailto:gmcg.fcil@ggov.in)

No.-RO CG-31033.0/7/2024-Sales-RO CG Date : 09.02.2024

**निविदा आमंत्रण सूचना**

Food Corporation of India invites bids from Processor/Flour Millers/Manufacturers/end user of **wheat** for sale of Wheat under OMSS (D) lying at its various Depots under FCI Chhattisgarh Region through e-auction. The Processor/Flour Millers/Manufacturers/end user of wheat for sale of Wheat may participate in the e-auction conducted by MJUNCTION on behalf of FCI on the website [www.valuejunction.in/fci](http://www.valuejunction.in/fci) as per the following schedule:-

**Schedule of Tender**

Date of floating tender	Start Date for Submission of EMD	End Date for Submission of EMD	Online Bidding Start at	Online Bidding Ends at
09.02.2024	09.02.2024	12.02.2024 (Till 06:00 PM)	14.02.2024 (11:00 AM)	14.02.2024 (02:00 PM)

The Depot-wise offered quantity of wheat, as well as MTF for sale of wheat is available on [www.fci.gov.in](http://www.fci.gov.in) and [www.valuejunction.in/fci](http://www.valuejunction.in/fci) detailed instructions to bidders and terms & conditions governing the e-auction may also be seen at [www.valuejunction.in/fci](http://www.valuejunction.in/fci). The empannelment of interested bidders is an ongoing and continuous process and those bidders who are interested to get themselves empaneled may contact help desk provided by MJUNCTION on Toll Free No. 0788-2221071, 07886540003 and 9009777860. **Further, Nodal Officer of FCI Chhattisgarh Region is Miss Nupur Anand, AGM (Sales) Phone No. 7995930023 & Nodal Officer of mjunction is Mr. Lokendra Kumbhakar, Phone No. 9424582539.**

**General Manager (Region)**



0/C

क्रमांक : 2272/एचपीएसएल/प्रशा./यूनिट-II/2023-24/2272 दिनांक: 05.03.2024

प्रति,

श्रीमान आयुक्त महोदय,  
नगर पालिक निगम, बीरगांव,  
रायपुर (छ.ग.)

विषय: हमारे द्वारा प्राप्त पर्यावरण स्वीकृति के संबंध में।

महोदय,

उपरोक्त विषयांतर्गत आपको सूचित करना चाहते हैं कि हमारे संयंत्र हीरा पावर एण्ड स्टील्स लिमिटेड, यूनिट-II, खसरा नं. 511/1, 512/2, उरला इण्डस्ट्रीयल कॉम्प्लेक्स, रायपुर (छ.ग.) को पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय द्वारा क्षमता विस्तार हेतु पर्यावरण स्वीकृति प्रदान कर दी गई है।

आपके सुलभ संदर्भ हेतु पर्यावरण स्वीकृति की प्रति प्रेषित कर रहे हैं।

सधन्यवाद।

भवदीय।

वास्ते, हीरा पावर एण्ड स्टील्स लिमिटेड, यूनिट-II

अधिकृत हस्ताक्षरकर्ता

संलग्नक : उपरोक्तानुसार।



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

o/c

Sent on Mail on 27/9/24

# HIRA

## HIRA POWER & STEELS

Ref: 2109/HPSL/2024-25/2109

Date: 27.09.2024

To,  
The Member Secretary,  
Chhattisgarh Environment Conservation Board,  
Paryavas Bhavan,  
North Block, Sector - 19,  
NAYA RAIPUR (C.G.) - 492002



**Sub: Submission of Environmental Statement (Form-V) for the Financial Year 2023-24.**

- Ref: 1. Consent of Board issued under Section 25/26 of the Water (Prevention & Control of Pollution) Act 1974 vide letter No.10518/TS/CECB/2024 Nava Raipur Atal Nagar, Dated 28 /03/ 2024**
- 2. Consent of Board issued under Section 21 of the Air (Prevention & Control of Pollution) Act 1981 vide letter No. 10518/TS/CECB/2024 Nava Raipur Atal Nagar, Dated 28 /03/ 2024**

Respected Sir,

With reference to the subject mentioned, please find enclosed herewith Environmental Statement in Form - V as prescribed under Rule 14 of the EPA Act, 1986 for the Financial Year 2023-24 of Hira Power & Steels Limited, Unit-II, Urla Industrial Complex, Raipur (C.G.)

Submitted for your kind information & record please.

Thanking You

Yours faithfully,

For, **HIRA POWER & STEELS LIMITED, UNIT-II**

**AUTHORIZED SIGNATORY**

Encl: A/a

CC to: The Regional Officer, Chhattisgarh Environment Conservation Board, New Office Building, Ring Road No. 2, Near CSEB Office, TATIBANDH, RAIPUR (C.G.)-492099



**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**

**ENVIRONMENTAL STATEMENT**  
**(FORM - V)**

**FOR THE FINANCIAL YEAR ENDING**  
**MARCH 31<sup>ST</sup> 2024 (2023-24)**

**HIRA POWER AND STEELS LIMITED**

UNIT - II

URLA INDUSTRIAL COMPLEX

RAIPUR (C.G.) - 492 003





HIRA POWER & STEELS

## Environmental Statement

(See Rule 14)

Environmental Statement for the financial year ending the 31<sup>st</sup> March 2024

### Part – A

Name and address of the owner/ Occupier of the industry operation or process	Hira Power & Steels Limited, Unit – II, Urla Industrial Complex, District - Raipur (C.G.)– 492003	
Industry category Primary-(STC Code) Secondary- (STC Code)	Red	
Production Capacity- Units	1 X 3.0 MVA Submerged Arc Furnace 1 X 3.6 MVA Submerged Arc Furnace 2 X 5.5 MVA Submerged Arc Furnace 1 X 6.0 MVA Submerged Arc Furnace 12 MT/Heat CLU Converter	64,000 MTPA Ferro Alloys (including low / medium carbon ferro alloys) Or 56,000 MTPA Pig Iron
	Captive Power Plant	20 MW
Year of establishment	1 X 3.0 MVA Submerged Arc Furnace	02.02.1994
	1 X 3.6 MVA Submerged Arc Furnace	15.01.1996
	2 X 5.5 MVA Submerged Arc Furnace	19.05.2006
	1 X 6.0 MVA Submerged Arc Furnace	23.02.2010
	12 MT/Heat CLU Converter	24.09.2016
	Captive Power Plant	25.03.2006
Date of the last environmental statement submitted.	20.09.2023	







## HIRA POWER & STEELS

### Part – B

#### Water and Raw Material Consumption

Water consumption in m<sup>3</sup>/d

Process & Cooling	:	428.66 KLD
Domestic	:	84.81 KLD
Other	:	24.49 KLD

Name of the product	Process water consumption per unit of product	
	During the Previous Financial year (2022-2023)	During the current Financial Year (2023-24)
1. Ferro Alloys	Ferro Alloys (Including Low/Medium Carbon) – 2.73 KL/Tonne	Ferro Alloys (Including Low/Medium Carbon)- 2.07 KL/Tonne
	CPP – 0.339 KL/MWh	CPP – 0.270 KL/MWh

#### II. Raw material consumption

Name of the Raw Materials	Name of the Products	Consumption of raw material per unit of Output	
		During the Previous Financial year (2022-23)	During the Current financial year (2023-2024)
Ferro Alloys (including low / medium carbon ferro alloys)			
1. Manganese Ore		2.593	2.385
2. Carbonaceous		0.728	0.670
3. Dolomite		0.016	0.046
4. Quartz		0.0004	0.0017
5. Iron Ore	Ferro Alloys	0.0120	0.000
6. Mill scale	(including low /	0.0093	0.0034
7. Carbon electrode paste	medium carbon	0.0139	0.0135
8. Ferro Silicon	ferro alloys)	0.0196	0.0170
9. Ferro Manganese		0.6689	0.5528
10. Silico Manganese		0.0987	0.0654
11. Calcined Dolomite		0.0669	0.0510
12. Calcined Lime		0.0714	0.0538
13. Fe-Mn Slag (Used in manufacturing of Si-Mn)		0.000	0.000
Pig Iron		Not Produced	Not Produced
1. Iron Ore		NA	NA
2. Sinter	Pig Iron	NA	NA
3. Coke		NA	NA
4. Limestone		NA	NA
Power Generation	Captive power generation	1.303 MT/MW	1.010 MT/MW
1. Coal & Dolochar			





## HIRA POWER & STEELS

\*Industry may use codes if disclosing details of raw material would violate contractual obligations otherwise all industries have to name the raw materials used.

### PART-C

#### Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)

Pollutants	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (mass/volume)	Percentage of variation from prescribed standards with reasons
(a) Water	<ul style="list-style-type: none"> <li>➤ Effluent generated from process, Softener backwash &amp; CT Blow down water is being used for different purpose like sprinkling to control fugitive dust emission (Road, Unloading, All around stockpiles &amp; raw materials etc.) after primary treatment.</li> <li>➤ Domestic waste water is being treated through septic tank and followed by soak pit</li> </ul>		
(b) Air	<ol style="list-style-type: none"> <li>1. We have installed Bag Filters in all the furnaces to control Emission in Ferro Alloys Division. We have installed Electrostatic Precipitator in Captive Power Plant to control emission. Stack Emission Report of March 2024 is attached as <b>Annexure-I</b>.</li> <li>2. Ambient Air Monitoring station is installed inside plant premises to have a regular check on the quality of Air as per the government norms. Ambient Air Monitoring Report is enclosed as <b>Annexure-II</b></li> </ol>		

### PART – D

#### Hazardous Waste

(As specified under Hazardous waste, Management, Handling & Transboundary Movement Rules, 2008)

Authorization under Hazardous Waste (Management, Handling & Trans Boundary Movement) Rules, 2008 & as Amended Rules, 2010 has been granted (Authorization No. 340/HO/HSMD/CECB/ATAL NAGAR, RAIPUR) vide letter No 3641/HO/HSMD/CECB/2020 Dated: 21.07.2021.

Hazardous Waste	Total Quantity	
	During the Previous Financial Year (2022-23)	During the Current Financial Year (2023-24)
(a) From Process – Used oil in Litres	2400	3350
(b) From DM plant – Resins in MT	NIL	NIL





# HIRA POWER & STEELS

## Part – E Solid Waste

		Total Quantity (MT)	
Solid Waste		During the Previous Financial year (2022-23)	During the Current financial year (2023-24)
(a)	From Process		
	i. Fe-Mn Slag	43791.839	51684.769
	ii. Fly Ash	58529.85	50408.56
	iii. Mn <sub>3</sub> O <sub>4</sub>	2049.564	1584.793
	iv. AOD Slag	9914.21	4613.69
(b)	From Pollution Control facilities	Bag Filter dust is recycled in the manufacturing process of Si-Mn & Fe Mn	
	i. Bag filter dust	1483.7	2251.1
	ii. Fly Ash	58529.85	50408.56
(c)	i. Qty recycled or reused within the unit.	Fe-Mn Slag is used as raw material for Si-Mn production	
	a. Bag filter dust	1335.33	0.00
	b. Mn <sub>3</sub> O <sub>4</sub> Dust	2295.151	510.313
	ii. Sold		
	a. Fe-Mn Slag	44361.72	51187.55
	b. Mn <sub>3</sub> O <sub>4</sub> Dust	150.00	1075
	c. Fly Ash (At zero value)	58529.85	50408.56
	d. AOD Slag	224.47	0.00
	iii. Disposed	<ul style="list-style-type: none"> <li>➤ Fly ash supplied to Bricks Manufacturers and used in environment friendly manner</li> <li>➤ Si-Mn slag used as aggregate for civil work (sales) &amp; filling of low lying area.</li> <li>➤ 4613.69 MT Low Grade AOD Slag was dumped in low lying area presently which is not sellable.</li> </ul>	
	a. Fly Ash	0.00	0.00
	b. AOD Slag	9914.21	4613.69







## HIRA POWER & STEELS

### Part-F

Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes

Hazardous Waste: No hazardous waste is generated from process except used oil which is drained from machineries / equipment and resin from DM Plant which is re-used in the process.

Solid Waste:

- Fly ash supplied to Bricks Manufacturers and used in environment friendly manner.
- Bag filter dust is recycled in the manufacturing process of Si-Mn & Fe-Mn.
- Slag generated is non-hazardous in nature.
- Fe-Mn slag is used as raw material for Si-Mn production
- Si-Mn slag is used as aggregate for civil work & filling of low lying area.

### Part-G

Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.

- 1 Extensive tree plantation, development of green belt & lawns in the factory premises which control the impact of air pollution & optimize the Ambient temperature of surrounding
- 2 Blow down water is being used for different purpose like floor washing & sprinkling to control the fugitive dust emission (like road, unloading area, raw material yard etc.)
- 3 Domestic waste water is being treated through Sewage Treatment Plant.

### Part-H

Additional measures/investment proposal for environmental protection including abatement of pollution

- 1 For better control on fugitive emission pneumatic sweeping machine and water sprinkling on road.
- 2 Extensive plantation, development of green belt & lawns in plant premises
- 3 Adaptation of good housekeeping practices
- 4 Rain water harvesting system for Surface rain water has been developed.
- 5 100% internal roads are constructed by concrete.
- 6 More than 17000 trees have been planted in premises and around 3000 outside the factory premises
- 7 Online Continuous emission monitoring system have been installed in all stacks
- 8 Continuous Ambient Air Quality Monitoring System has been installed inside plant premises
- 9 Raw material handling sections have been provided with dust suppression / dust collection system.
- 10 Acoustic hoods have been provided to most of the noise generating equipment & covered in closed structures, the noise transmitted outside would be still lower.
- 11 Plant operators working in high level noise zone have provided with ear plug / muff







HIRA POWER & STEELS

Part-I

MISCELLANEOUS:

Any other particulars in respect of environmental protection and abatement of pollution.

- 1 Training on EMS to all employees and contract labors to create awareness
- 2 Further gap filling is being done to improve the density of green belt.
- 3 Good housekeeping practices have been adopted.
- 4 Only PUC certified vehicles are allowed for transportation of Raw materials and Finished goods
- 5 Air, water, noise level and effluent monitoring is being done by NABL accredited lab
- 6 Celebration of environmental promotional activities (Environment Day).
- 7 Horticulture Department is taking care of tree plantation & green belt development.





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

<b>To,</b>	REPORT NO	UES/TR/23-24/08777
<b>Hira Power and Steels Limited (Unit-II)</b>	LAB REF NO	UES/23-24/ST/016915
<b>Khasra No. 511/1, 511/2, 512/1, 512/2</b>	DATE OF SAMPLING	15/03/2024
<b>and Others</b>	DATE OF RECEIPT	16/03/2024
<b>Urla Industrial Area, Raipur (Chhattisgarh)</b>	DATE OF REPORT	20/03/2024
	DATE OF ANALYSIS	Start: 16/03/2024 End: 20/03/2024
<b>SAMPLE DETAILS</b>		
Monitoring For	Stack Emission Monitoring	
Customer Ref. No. & Date	P.O. No. 7200004821/u102, dated: 10/06/2023	
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, 25 ml X 1 No. PVC Bottle: Rubber Bladder: 1 X 1 No.	

### TEST REPORT

<b>Stack details</b>				
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 level (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			
<b>Parameter</b>	<b>Unit</b>	<b>Method Reference</b>	<b>Limit</b>	<b>Result</b>
Flue Gas Temperature	°C	IS 11255 (Part 3): 2008	-	89.6
Flue Gas Velocity	M/s	IS 11255 (Part 3): 2008	-	10.45
Total Gas Quantity	Nm <sup>3</sup> /h	IS 11255 (Part 3): 2008	-	47570.0
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS 11255 (Part 1): 1985	40	34.8

REMARKS: RESULTS ARE AS ABOVE

#### Terms & conditions

- The use of the report for publication, arbitration or as legal dispute is forbidden
- 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 tests only

ULTIMATE ENVIROLYTICAL SOLUTIONS

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 | Email : ultimatenviro@gmail.com

<b>To,</b> <b>Hira Power and Steels Limited (Unit-II)</b> <b>Khasra No. 511/1, 511/2, 512/1, 512/2 and Others</b> <b>Urla Industrial Area,</b> <b>Raipur (Chhattisgarh)</b>	REPORT NO	UES/TR/23-24/08778	
	LAB REF NO	UES/23-24/ST/016916	
	DATE OF SAMPLING	15/03/2024	
	DATE OF RECEIPT	16/03/2024	
	DATE OF REPORT	20/03/2024	
	DATE OF ANALYSIS	Start:15/03/2024	End 20/03/2024
<b>SAMPLE DETAILS</b>			
Monitoring For	Stack Emission Monitoring		
Customer Ref. No. & Date	P.O. NO. 7200004006/U101, DATED 16/06/2022		
Sampling Location	5.5 & 5.5 MVA Submerged Arc Furnace C&D (Combine Stack)		
Sample Collected By	Laboratory Chemist		
Sampling Procedure	IS 11255 Part 1,2,1995 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>2</sub> : 25 ml X 1 No. PVC Bottle Rubber Bladder 1 X 1 No.		

## TEST REPORT

### Stack details

Stack Identity

5.5 & 5.5 MVA SUBMERGED ARC  
FURNACE C & D' (COMBINE STACK)

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 & 5.5 MVA

Parameter	Unit	Method Reference	Limit	Result
Flue Gas Temperature	°C	IS 11255 (Part -3) 2008	-	111.5
Flue Gas Velocity	M/s	IS 11255 (Part -3) 2008	-	7.62
Total Gas Quantity	Nm <sup>3</sup> /h	IS 11255 (Part -3) 2008	-	32711.7
Total Particulate Matter (TPM)	mg/Nm	IS 11255 (Part -1) 1985	40	33.6

REMARKS: RESULTS ARE AS ABOVE

### Terms & conditions

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ULTIMATE ENVIROLYTICAL SOLUTIONS

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 - 402777 | Email : ultimatenviro@gmail.com

<b>To,</b> <b>Hira Power and Steels Limited (Unit-II)</b> <b>Khasra No. 511/1, 511/2, 512/1, 512/2 and Others</b> <b>Urla Industrial Area,</b> <b>Raipur (Chhattisgarh)</b>	REPORT NO	UES/TR/23-24/08779
	LAB REF NO	UES/23-24/ST/016917
	DATE OF SAMPLING	15/03/2024
	DATE OF RECEIPT	16/03/2024
	DATE OF REPORT	20/03/2024
	DATE OF ANALYSIS	Start:16/03/2024      End: 20/02/2024
<b>SAMPLE DETAILS</b>		
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 1:2008, 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.: 25 ml X 1 No. PVC Bottle, Rubber Bladder: 1 X 1 No.	

## TEST REPORT

<b>Stack details</b>					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
<b>Parameter</b>	<b>Unit</b>	<b>Method Reference</b>	<b>Limit</b>		<b>Result</b>
Flue Gas Temperature	°C	IS 11255 (Part 3): 2008	-		134.5
Flue Gas Velocity	M/s	IS 11255 (Part 3): 2008	-		10.12
Total Gas Quantity	Nm <sup>3</sup> /h	IS 11255 (Part 3): 2008	-		83656.8
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS 11255 (Part 1): 1985	40		35.0

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For: ULTIMATE ENVIROLYTICAL SOLUTIONS

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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 | Email : ultimatenviro@gmail.com

Name & Address Of The Customer		REPORT NO	UES/TR/23-24/08780
To,		LAB REF NO	UES/23-24/ST/016918
Hira Power and Steels Limited (Unit-II)		DATE OF SAMPLING	15/03/2024
Khasra No. 511/1, 511/2, 512/1, 512/2 and Others		DATE OF RECEIPT	16/03/2024
Urla Industrial Area,		DATE OF REPORT	20/03/2024
Raipur (Chhattisgarh)		DATE OF ANALYSIS	Start:16/03/2024      End 20/03/2024
SAMPLE DETAILS			
Monitoring For	Stack Emission Monitoring		
Customer Ref. No. & Date	P.O. NO. 720004006/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., 50%; 30 ml X 1 No. PVC Bottle: NO., 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 level (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	-	89.1
Flue Gas Velocity	M/s	IS 11255 (Part 3): 2008	-	10.71
Total Gas Quantity	Nm <sup>3</sup> /h	IS 11255 (Part 3): 2008	-	131194.2
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS 11255 (Part 1): 1985	40	32.1

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ULTIMATE ENVIROLYTICAL SOLUTIONS	
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 | Email : ultimatenviro@gmail.com

To, <b>Hira Power and Steels Limited (Unit-II)</b> <b>Khasra No. 511/1, 511/2, 512/1, 512/2 and Others</b> <b>Urla Industrial Area,</b> <b>Raipur (Chhattisgarh)</b>	REPORT NO	UES/TR/23-24/08781
	LAB REF NO	UES/23-24/ST/016919
	DATE OF SAMPLING	15/03/2024
	DATE OF RECEIPT	16/03/2024
	DATE OF REPORT	20/03/2024
	DATE OF ANALYSIS	Start: 16/03/2024      End: 20/03/2024
<b>SAMPLE DETAILS</b>		
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	IS 11255 Part 1:2 1985 Reaffirmed 2009; Part 1:2008, 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

<b>Stack details</b>				
Stack Identity	20 MW AFBC			
Stack Attached To	ESP			
Material of Construction	RCC			
Height of the stack from ground level (Meter)	73.0 MTR			
Stack Diameter	2.83 MTR			
Stack Shape At Top	CIRCULAR			
Type of Fuel	COAL			
Total Electrical Load (KW)	20 KW			
<b>Parameter</b>	<b>Unit</b>	<b>Method Reference</b>	<b>Limit</b>	<b>Result</b>
Flue Gas Temperature	°C	IS 11255 (Part 3):2008	-	150.0
Flue Gas Velocity	M/s	IS 11255 (Part 3):2008	-	15.45
Total Gas Quantity	Nm <sup>3</sup> /h	IS 11255 (Part 3):2008	-	246348.2
Sulphur Dioxide (SO <sub>2</sub> )	mg/Nm <sup>3</sup>	IS 11255 (Part 2):1985	600	272
Oxides of Nitrogen (NO <sub>x</sub> )	mg/Nm <sup>3</sup>	IS 11255 (Part 7):2005	300	154
Total Particulate Matter (TPM)	mg/Nm <sup>3</sup>	IS 11255 (Part 1):1985	50	42.0
Carbon Monoxide (CO)	mg/Nm <sup>3</sup>	IS 13270:2019	-	2.4
Hg	mg/Nm <sup>3</sup>	USEPA Method No. 29	0.03	N.D.

**REMARKS:** RESULTS ARE AS ABOVE

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ULTIMATE ENVIROAL SOLUTIONS

REVIEWED BY

AUTHORIZED SIGNATORY

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

## Annexure-II



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

<b>To,</b> <b>Hira Power and Steels Limited (Unit-II)</b> <b>Khasra No. 511/1, 511/2, 512/1, 512/2 and Others</b> <b>Urla Industrial Area, Raipur (Chhattisgarh)</b>		Report No.	UES/TR/23-24/08176
		Lab Ref No.	UES/23-24/AAQM/016911 016914
		Date of Sampling	15/03/2024 to 16/03/2024
		Date of Receipt	15/03/2024
		Date of Report	20/03/2024
		Date of Analysis	Start: 16/03/2024    End: 20/03/2024
<b>SAMPLE DETAILS</b>			
Monitoring For	Ambient Air Quality Monitoring		
Sampling Location	1.	Near CHP Area	
	2.	Beside Silo	
	3.	Solar Panel Area	
	4.	Near Main Gate	
Customer Ref. No. & Date	P.O. NO. 7200004821/U102, DATED: 10/06/2023		
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) 2005 & CPCB Guidelines Vol -I
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	IS 5182 (Part-24) 2019 & CPCB Guidelines Vol -I
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part-2) 2001 & CPCB Guidelines Vol -I
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 (Part-6) 2006 & CPCB Guidelines Vol -I
Carbon Monoxide (CO)*	IS 5182 (Part-10)

## TEST REPORT

Parameter	Unit	NAAQM Standard	Results			
			Near CHP Area	Beside Silo	Solar Panel Area	Near Main Gate
PM <sub>10</sub>	µg/m <sup>3</sup>	100	66.2	68.5	66.6	70.5
PM <sub>2.5</sub>	µg/m <sup>3</sup>	60	32.0	34.7	32.9	34.8
SO <sub>2</sub>	µg/m <sup>3</sup>	80	16.6	18.8	16.5	18.2
NO <sub>2</sub>	µg/m <sup>3</sup>	80	22.8	23.4	22.8	24.0
CO	mg/m <sup>3</sup>	4.0	0.54	0.74	0.64	0.64

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ULTIMATE ENVIROLYTICAL SOLUTIONS

REVIEWED BY

AUTHORIZED SIGNATORY

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





## CHHATTISGARH ENVIRONMENT CONSERVATION BOARD

**Paryavas Bhawan, Sector - 19**

**Atal Nagar, District - Raipur (C.G.)**

**E-mail - hocecb@gmail.com**

=====

No. 10518 /TS/CECB/2024      Nava Raipur Atal Nagar, Dated 28 /03/ 2024

To,

M/s Hira Power and Steels Limited  
Unit-II,  
Urla Industrial Area,  
**District - Raipur (C.G.)**

Sub: - "Permission to Establish" cum amendment in consent of the Board issued under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 for expansion in Ferro Alloys Plant – 48,000 Metric Tonnes Per Annum to 64,000 Metric Tonnes Per Annum [Including Low / Medium Carbon Ferro Alloys 48,000 Tonnes Per Annum].

Ref: - 1. "Permission to Establish" issued by Chhattisgarh Environment Conservation Board, Raipur (C.G.) vide letter no. 4629/TS/CECB/2014 Raipur, dated: 31/10/2014 for CLU Converter within the process to enrich the quality of Ferro Alloys by reducing the carbon for manufacturing of Low / Medium Ferro Alloys capacity of 18,000 Metric Tonnes/Annum.

2. Amendment in consent under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 vide letter no. 3614/TS/CECB/2016 Raipur, dated: 24/09/2016 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 vide letter no. 3616/TS/CECB/2016 Raipur, dated: 24/09/2016 for CLU Converter within the process to enrich the quality of Ferro Alloys by reducing the carbon for manufacturing of Low / Medium Ferro Alloys capacity of 18,000 Metric Tonnes/Annum.

3. Clubbing consent issued under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 vide letter no. 208/TS/CECB/2018 Raipur, dated: 03/04/2018 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 vide letter no. 210/TS/CECB/2018 Raipur, dated: 03/04/2018 for Ferro Alloys (including Low / Medium Ferro Alloys) - 18,000 Metric Tonnes/Annum and Ferro Alloys - 30,000 Metric Tonnes/Annum or Pig Iron from 2 x 5.5 MVA Submerged Arc Furnaces - 56,000 Metric Tonnes/Annum and Captive Power Plant – 20 MW.

4. Amendment in consent issued by, Chhattisgarh Environment Conservation Board, Raipur, vide letter no. 781/TS/CECB/2018 Raipur, dated: 10/05/2019 for Alumino Thermic Process - 600 Metric Tonnes/Annum for production of Low / Medium Carbon Ferro Manganese (Ferro Alloy).

5. Renewal of consent of the Board issued under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 vide letter no. 968/TS/CECB/2023 Nava Raipur, dated: 16/05/2023 for Ferro Alloys [including Low / Medium Ferro Alloys and Alumino Thermic Process - 600



Metric Tonnes/Annum for production of Low / Medium Carbon Ferro Manganese (Ferro Alloy)] - 18,000 Tonnes Per Annum & Ferro Alloys - 30,000 Metric Tonnes/Annum or Pig Iron from 2 x 5.5 MVA Submerged Arc Furnaces - 56,000 Metric Tonnes Per Annum and Captive Power Plant – 20 Megawatt.

6. Environmental clearance issued by the Ministry of Environment, Forest and Climate Change, Government of India vide letter no. IA-J-11011/836/2008-IA-II(IND-I), dated: 05/02/2024 (EC Identification No. - EC23A1005CG5183604E).
7. Your online application dated 06/02/2024 and subsequent correspondence ending dated: 20/02/2024 (online application no. 14685492).

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Chhattisgarh Environment Conservation Board had issued amendment in "Permission to Establish" under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 vide letter no. 4629/TS/CECB/2014 Raipur, dated: 31/10/2014 for CLU Converter within the process to enrich the quality of Ferro Alloys by reducing the carbon for manufacturing of Low / Medium Ferro Alloys capacity of 18,000 Metric Tonnes/Annum.

Subsequently, Chhattisgarh Environment Conservation Board had issued amendment in consent under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 vide letter no. 3614/TS/CECB/2016 Raipur, dated: 24/09/2016 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 vide letter no. 3616/TS/CECB/2016 Raipur, dated: 24/09/2016 for CLU Converter within the process to enrich the quality of Ferro Alloys by reducing the carbon for manufacturing of Low / Medium Ferro Alloys capacity of 18,000 Metric Tonnes/Annum.

Combined consent issued under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 vide letter no. 208/TS/CECB/2018 Raipur, dated: 03/04/2018 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 vide letter no. 210/TS/CECB/2018 Raipur, dated: 03/04/2018 for Ferro Alloys (including Low / Medium Ferro Alloys) - 18,000 Metric Tonnes/Annum and Ferro Alloys - 30,000 Metric Tonnes/Annum or Pig Iron from 2 x 5.5 MVA Submerged Arc Furnaces - 56,000 Metric Tonnes/Annum and Captive Power Plant – 20 MW. These consents are valid up to 31/03/2022.

Further, Amendment in consent was issued by Chhattisgarh Environment Conservation Board vide letter no. 781/TS/CECB/2018 Raipur, dated: 10/05/2019 for Alumino Thermic Process - 600 Metric Tonnes/Annum for production of Low / Medium Carbon Ferro Manganese (Ferro Alloy).

The renewal of consent for Ferro Alloys [including Low / Medium Ferro Alloys and Alumino Thermic Process - 600 Metric Tonnes/Annum for production of Low / Medium Carbon Ferro Manganese (Ferro Alloy)] - 18,000 Tonnes Per Annum & Ferro Alloys - 30,000 Metric Tonnes/Annum or Pig Iron from 2 x 5.5 MVA Submerged Arc Furnaces - 56,000 Metric Tonnes Per Annum and Captive Power Plant – 20 Megawatt vide letter no. 968/TS/CECB/2023 Nava Raipur, dated: 16/05/2023. The above consent is valid up to 31/03/2024.

Now, industry has submitted application for obtaining permission to establish cum amendment in consent of the Board under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air

(Prevention and Control of Pollution) Act, 1981 for expansion in Ferro Alloys Plant – 48,000 Metric Tonnes Per Annum to 64,000 Metric Tonnes Per Annum [Including Low / Medium Carbon Ferro Alloys 48,000 Tonnes Per Annum] through online application dated 06/02/2024 and subsequent correspondence ending dated: 20/02/2024 (online application no. 14685492).

Regional Officer, Chhattisgarh Environment Conservation Board, Raipur (C.G.) informed that industry has installed adequate air and water pollution control systems. Regional Officer, Chhattisgarh Environment Conservation Board, Raipur (C.G.) has recommended for permission to establish cum amendment in consent for expansion in Ferro Alloys Plant – 48,000 Metric Tonnes Per Annum to 64,000 Metric Tonnes Per Annum.

The facts submitted by the industry have been examined. After careful consideration of the facts & materials in record and in the view of the above, consent letter issued under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 vide letter no. 208/TS/CECB/2018 Raipur, dated: 03/04/2018 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 vide letter no. 210/TS/CECB/2018 Raipur, dated: 03/04/2018 are hereby amended as follows for expansion in Ferro Alloys Plant – 48,000 Metric Tonnes Per Annum to 64,000 Metric Tonnes Per Annum [Including Low / Medium Carbon Ferro Alloys 48,000 Tonnes Per Annum], subject to fulfillment of the terms & conditions mentioned in the consent letter, renewal of consents, amendment in consents and following additional terms & conditions:-

(1) The consent shall be valid for following :-

S. No.	Name	Production Capacity
01	Ferro Alloys [Including Low / Medium Carbon Ferro Alloys 48,000 Tonnes Per Annum]	64,000 Tonnes Per Annum (Sixty Four Thousand Tonnes Per Annum)
	Or	Or
	Pig Iron From 2 x 5.5 MVA Submerged Arc Furnaces	56,000 Tonnes Per Annum (Fifty Six Thousand Tonnes Per Annum)
02	Captive Power Plant	20 Megawatt (Twenty Megawatt)

(2) This consent shall be valid up-to 28/02/2025.

### **Additional Conditions**

#### **A. Water consent as per the Water (Prevention and Control of Pollution) Act, 1974**

- (1) Industry shall achieve increase in production of Ferro Alloys by improvement in efficiency and using better quality of raw materials without any change in plant and machinery. Industry shall ensure that after operation of expansion activity including existing Ferro Alloys, pollution load shall not exceed the existing load for which consent to operate had already been granted.
- (2) Industry shall ensure completion of mitigation measures prescribed by CECB and adhere to the stipulations incorporated in the order issued by the Chhattisgarh Environment Conservation Board vide letter no.

8175/TS/CECB/2019 Nava Raipur Atal Nagar, dated: 17/12/2019 within the stipulated time schedule.

- (3) Industry shall not use coal, pet-coke, furnace oil, LSHS as a fuel etc. (solid or liquid) as fuel under any circumstances. Industry shall not increase the quantity of coal in the power plant.
- (4) Industry shall provide adequate effluent treatment system for treatment of industrial and domestic effluent. Industry shall operate and maintain the effluent treatment system regularly. Industry shall ensure treated effluent quality within the standards prescribed by Board published in Gazette Notification dated 25.03.88. Treated effluent shall be used in process or in beneficial uses within plant premises. Industry shall not discharge any treated / untreated effluent in to the river or any surface water bodies. No effluent shall be discharged outside of the factory premises in any circumstances; hence zero discharge condition shall be maintained at all the time. Chhattisgarh Environment Conservation Board may further stipulate stringent limit depending upon environmental conditions.
- (5) Water shall be sourced from CSIDC limited. No ground water shall be used for industrial activities. Industry shall make arrangements like installation of digital water meter separately for underground as well as surface water, reuse of non potable water etc. as per NGT order dated 15/11/2022 on OA no. 392/2022 for use of water.
- (6) Closed cycle cooling system shall be provided. Minimum water for makeup purposes shall be ensured. Industry shall provide adequate measuring arrangements for the measurement of water utilized in different categories and effluent generated before commissioning of the expansion activity. Industry shall only use treated effluent for preparation of lime / neutralization slurry / other slurry for use in ETP. No fresh water shall be utilized for such purposes. Industry shall use treated effluent for make-up of cooling water / process water as maximum as possible. Industry shall ensure no change in water consumption, sewage and industrial effluent generation.
- (7) Industry shall install continuous monitoring of effluent quality / quantity as per CPCB guidelines for relevant parameters (like pH, Flow, Temperature, TOC/COD etc.) without delay and shall be connected to CECB / CPCB server. Industry shall also provide flow meter. Industry shall submit monitoring report of effluent regularly. Calibration and validation of data shall be carried out of all CWQMS and industry shall ensure availability of real time data in CECB / CPCB server.
- (8) Industry shall use fly ash brick, fly ash block and fly ash based products in the construction/repairing activities. Industry shall also use fly ash for filling low-lying areas within plant premises.
- (9) All raw materials/ finished products shall be stored above ground level with pucca platform in covered area. Industry shall provide safe and scientific arrangement for handling, storage and disposal of all solid wastes such as; slag and dust collected in air pollution control devices etc. Ferro silicon slag shall be provided to cast iron foundries for further utilization. Slag produced in Ferro Manganese (Fe –Mn) production, shall be used in manufacturing silico manganese (Si – Mn). All other solid wastes including broken refractory mass shall be properly disposed off in environment friendly manner. Oily waste shall be provided to authorized recyclers /re-processors. Industry shall obtain authorization from Board

for management and handling of hazardous materials as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (as amended) and comply with the rule. Industry shall strictly comply with all the measures specified in guidelines for spent solvent management, spent acid management, and other guidelines / directions published from time to time by CECB / CPCB / MoEF&CC. Industry shall ensure transportation of Hazardous Wastes through GPS mounted vehicles.

- (10) Industry shall ensure transportation of raw materials, fuel, dust generating products by properly covered vehicles. Industry shall also ensure use of mechanically covered vehicles for transportation of raw materials, fuel, dust generating products on or before 12/07/2024.
- (11) All internal roads shall be maintained pucca. Industry shall adopt good housing keeping practice. Vehicle movement areas / roads within premises shall be maintained pucca from drain to drain to avoid dusting without delay.
- (12) Industry shall enhance the capacity of rainwater-harvesting structures in the project area and residential area (if any) for recharge of ground water. Industry shall develop rainwater-harvesting structures and reservoirs / ponds to harvest the rainwater for utilization in the lean season as well as to recharge the ground water table. Industry shall ensure recharging of ground water by rainwater harvesting of at-least double the quantity of water use by them in expansion activities, which shall be done within or outside the premises.
- (13) Wide green belt of broad leaf local species shall be developed along the plant premises. As far as possible maximum area of open spaces shall be utilized for plantation purposes. Green belt / plantation shall be developed within the plant premises in at-least 40% area of total plant area. Development of green belt / plantation outside project premises in adjacent areas such as avenue plantation, plantation in vacant areas, social forestry, etc. shall also be ensured.
- (14) Industry shall submit performance test report pollution control equipments conducted by IoR (IIT/NIT/NABL Accredited) etc. every year.
- (15) Industry shall submit third party verification report of CTE/CTO condition every year.
- (16) Industry shall submit certificate regarding adequacy of roads based on carrying capacity of transportation of roads from concerned government authority within one month.
- (17) Industry shall ensure compliance of mitigation measures and stipulation of conditions issued by Ministry of Environment, Forest and Climate Change, Government of India (MoEF&CC) / Central Pollution Control Board (CPCB) from time to time regarding environmental management of critically polluted areas.
- (18) If industry fails to comply any of the above condition(s), the bank guarantee submitted by industry may be forfeited and this amendment in consent may be cancelled without further notice.

**B. Air Consent as per the Air (Prevention and Control of Pollution) Act, 1981**



- (1) Industry shall achieve increase in production of Ferro Alloys by improvement in efficiency and using better quality of raw materials without any change in plant and machinery. Industry shall ensure that after operation of expansion activity including existing Ferro Alloys, pollution load shall not exceed the existing load for which consent to operate had already been granted.
- (2) Industry shall ensure completion of mitigation measures prescribed by CECB and adhere to the stipulations incorporated in the order issued by the Chhattisgarh Environment Conservation Board vide letter no. 8175/TS/CECB/2019 Nava Raipur Atal Nagar, dated: 17/12/2019 within the stipulated time schedule.
- (3) Industry shall not use coal, pet-coke, furnace oil, LSHS as a fuel etc. (solid or liquid) as fuel under any circumstances. Industry shall not increase the quantity of coal in the power plant.
- (4) Industry shall install appropriate air pollution control systems to ensure the particulate matter emission from any point source below  $25 \text{ mg/Nm}^3$  all the time. Industry shall provide appropriate dust suppression/dust extraction system with bag filters at all fugitive dust emission sources such as material / wastes loading, unloading, handling, conveying system, transfer points/junction points, stock house etc. Good housekeeping practices shall be adopted by the industry. Industry shall also maintain the ambient air quality within the factory premises within prescribed limits. Chhattisgarh Environment Conservation Board may further stipulate stringent particulate matter emission limit depending upon environmental conditions.
- (5) The minimum height of stack(s) shall be based on  $H=14(Q)^{0.3}$  (where Q is emission rate of  $\text{SO}_2$  in Kg/Hr. and H is Stack height in meters) or as per guidelines of Ministry of Environment, Forest and Climate Change, Government of India/Central Pollution Control Board or 30 meters (whichever is higher).
- (6) Industry shall provide appropriate dust suppression / dust extraction system at all fugitive dust emission sources such as raw material handling, product and wastes handling section, conveying system, transfer points/junction points, stock house etc. All conveyor belt, all transfer points, all junction points etc. shall be completely closed to avoid fugitive emission. All transfer points / junction points shall be fitted with dust suppression system followed by bag filter. Industry shall also install water sprinkler system for dust suppression at all vulnerable points / areas to control fugitive dust emission.
- (7) Industry shall adhere to sector specific guidelines / SOP published by CPCB from time to time for effective fugitive emission control. Industry shall maintain fugitive dust emissions to the minimum level in the areas of road transportation routes of raw materials and wastes to ensure Ambient Air Quality within latest prescribed standard. Black topping/asphalting/concreting and maintenance with requisite water sprinkling arrangements shall be ensured.
- (8) Industry shall ensure regular running of Continuous Emission Monitoring System - CEMS (as per CPCB guidelines for relevant parameters) in all the stack(s) of existing and shall be connected with CECB/CPCB server. Calibration and validation of data shall be carried out of all CEMS / CAAQMS and industry shall ensure availability of real time data in CECB / CPCB server.

- (9) Industry shall use fly ash brick, fly ash block and fly ash based products in the construction/repairing activities. Industry shall also use fly ash for filling low-lying areas within plant premises.
- (10) All raw materials/ finished products shall be stored above ground level with pucca platform in covered area. Industry shall provide safe and scientific arrangement for handling, storage and disposal of all solid wastes such as; slag and dust collected in air pollution control devices etc. Ferro silicon slag shall be provided to cast iron foundries for further utilization. Slag produced in Ferro Manganese (Fe –Mn) production, shall be used in manufacturing silico manganese (Si – Mn). All other solid wastes including broken refractory mass shall be properly disposed off in environment friendly manner. Oily waste shall be provided to authorized recyclers /re-processors. Industry shall obtain authorization from Board for management and handling of hazardous materials as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (as amended). Industry shall strictly comply with all the measures specified in guidelines for spent solvent management, spent acid management, and other guidelines / directions published from time to time by CECB / CPCB / MoEF&CC. Industry shall ensure transportation of Hazardous Wastes through GPS mounted vehicles.
- (11) Industry shall ensure transportation of raw materials, fuel, dust generating products by properly covered vehicles. Industry shall also ensure use of mechanically covered vehicles for transportation of raw materials, fuel, dust generating products on or before 12/07/2024.
- (12) All internal roads shall be maintained pucca. Industry shall adopt good housing keeping practice. Vehicle movement areas / roads within premises shall be maintained pucca from drain to drain to avoid dusting without delay.
- (13) Wide green belt of broad leaf local species shall be developed along the plant premises. As far as possible maximum area of open spaces shall be utilized for plantation purposes. Green belt / plantation shall be developed within the plant premises in at-least 40% area of total plant area. Development of green belt / plantation outside project premises in adjacent areas such as avenue plantation, plantation in vacant areas, social forestry, etc. shall also be ensured.
- (14) Industry shall submit performance test report pollution control equipments conducted by IoR (IIT/NIT/NABL Accredited) etc. every year.
- (15) Industry shall submit third party verification report of CTE/CTO condition every year.
- (16) Industry shall submit certificate regarding adequacy of roads based on carrying capacity of transportation of roads from concerned government authority within one month.
- (17) Industry shall ensure compliance of mitigation measures and stipulation of conditions issued by Ministry of Environment, Forest and Climate Change, Government of India (MoEF&CC) / Central Pollution Control Board (CPCB) from time to time regarding environmental management of critically polluted areas.

- (18) If industry fails to comply any of the above condition(s), the bank guarantee submitted by industry may be forfeited and this amendment in consent may be cancelled without further notice.

The other terms and conditions mentioned in consent letter issued under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 vide letter no. 208/TS/CECB/2018 Raipur, dated: 03/04/2018 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 vide letter no. 210/TS/CECB/2018 Raipur, dated: 03/04/2018, renewal of consents, amendment in consents shall remain unchanged. Please keep this letter along with original consent letters.

Please acknowledge the receipt of this letter.

For & on behalf of  
Chhattisgarh Environment Conservation Board

**Member Secretary**

Chhattisgarh Environment Conservation Board  
Atal Nagar, District - Raipur (C.G.)

Endt. No. 10519 /TS/CECB/2024 Nava Raipur Atal Nagar, Dated 28 /03/ 2024  
Copy to: -

Regional Officer, Regional Office, Chhattisgarh Environment Conservation Board, Raipur (C.G.). Please inspect the industry and ensure compliance of consent / renewal condition(s) and take action as per law, if any condition/conditions are violated by the industry.

**Sd/-**

**Member Secretary**

Chhattisgarh Environment Conservation Board  
Atal Nagar, District - Raipur (C.G.)