HIRA
ALOK FERRO ALLOYS

AFAL/ENV/2025-26/ 314 **Date : 13.02.2026**

To
The Director
Ministry of Environment, Forest and Climate Change
Government of India, Regional Office
Kendriya Paryavaran Bhawan, North Block, Sector-19
Nava Raipur Atal Nagar, Raipur, Chhattisgarh – 492002 India

Subject: Submission of six-monthly compliance report, Dec-2025 of the environmental/ safeguards conditions stipulated in environment clearance letter for the "Expansion of Ferro Alloys Limited Production Unit" at Urla Industrial Area, Raipur, Chhattisgarh by M/s Alok Ferro Alloys Limited

Reference: File. No 1A-J-11011/97/2024-1A-II (IND-I) dated 1st August, 2025.

Respected Sir,

We wish to inform you that we have obtained Environment Clearance from MoEF&CC vide File. No. 1A-J-11011/97/2024-1A-II (IND-I) dated 1st August, 2025 for the Project- "Expansion of Ferro Alloys Production Unit" at Urla Industrial Area, Village Accholi, Raipur, Chhattisgarh By M/s Alok Ferro Alloys Limited.

Further, Consent to Operate for the said project has been obtained from the Chhattisgarh Pollution Control Board vide Ref. No. **8864/TS/CECB/2022 dated 04.03.2022 valid upto 28.02.2027 & 7756/TS/CECB/2022 dated 31.01.2022 valid upto 31.01.2027**

In compliance with the conditions stipulated in the Environmental Clearance, we are hereby submitting the **Six-Monthly Compliance Report** for the period ending **Dec-2025**, along with the necessary annexures, in accordance with the prescribed guidelines of the Ministry of Environment, Forest and Climate Change.

Yours faithfully,
For, M/s Alok Ferro Alloys Limited

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

Authorised Signatory

Name: Ajay Dubey (Director)
Mobile No.: 9755522009
Email ID: ajay.dubey@hiragroup.com

SIX MONTHLY COMPLIANCE REPORT, DECEMBER-2025

"Expansion of Ferro Alloys Production Unit"

at

Urla Industrial Area, Urla, Raipur, Chhattisgarh

Environment Clearance Letter	**F. No. 1A-J-11011/97/2024-1A-II (IND-I) dated 1st August, 2025**
Consent to Operate	**Consent to Operate : 8864/TS/CECB/2022 dated 04.03.2022 valid upto 28.02.2027 & 7756/TS/CECB/2022 dated 31.01.2022 valid upto 31.01.2027**

Project Proponent

M/s Alok Ferro Alloys Limited

Plot no. 458/1, 459, Urla Industrial Area, Raipur, Chhattisgarh

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CHAPTER 1. DATASHEET

Monitoring the Implementation of Environmental Safeguards

Ministry Of Environment & Forest

Monitoring Report

Part – I

Sr. No.	Particulars	Details
1.	Project type: River-valley/ Mining/Industry/Thermal/ Nuclear/ other (specify)	Industrial Project - I
2.	Name of the project	"Expansion of Existing Ferro Alloy Plant" by Alok Ferro Alloys Limited (AFAL) for production Capacity of Si-Mn/Fe-Mn and proposed manufacturing of Fe-Si and Pig Iron at the Existing Plant Premises. Additionally, 1500 KW / 2100 Kg Ferro Melt Induction Furnace for 750 Ton monthly capacity (9000 TPA) will be installed for melting of Si-Mn/Fe-Mn fines particles which is received from final product of SAF.
3.	Clearance letter (s) / OM no and date	**Clearance Letter (s):** Amendment in Environmental Clearance (EC) for expansion of Ferro Alloys Production Unit and Captive Power Plant has been accorded vide letter no: F. No. 1A-J-11011/97/2024-IA-II(IND-I) dated 1st August, 2025 by MoEF&CC. **Clearance Letter / MOM:** MoEF&CC Minutes of 6th EAC Meeting Industry – 1 Sector Meeting Project -1 Held on 26.06.2025.
4.	Location (a) District (s) (b) State (s) (c) Latitude/ Longitude	Urla Industrial Area, Urla, Tehsil and District Raipur, Chhattisgarh. Raipur Chhattisgarh 21°19'1.37"N, 81°36'50.42"E
5.	Address for correspondence a) address of Concerned Project Chief Engineer (with pin code & telephone/telex/fax numbers) b) Address of Executive Project Engineer/ Manager (with pincode/ fax numbers)	Mr. Ajay Dubey (Director) Plot no. 458/1, 459, Urla Industrial Area, Urla, Raipur, Chhattisgarh.
6.	Salient features	The salient features of the project along with

Sr. No.	Particulars	Details
	a) of the project b) of the environmental management plans	environment management plans are provided in Executive summary as given below in Chapter 2.
7.	Break up of the project area a) Submergence area : forest & non-forest b) Others	The total land area of the plot is 7.317 Ha. Out of the total land, 0.853 ha. was allotted by CSIDC and remaining 6.464 ha. was privately acquired. There is no additional land was procured for the expansion of the unit. The project does not entail submergence of any area, including forest and non-forest land.
8.	Break up of the project affected population with enumeration of those losing houses / dwelling units only agricultural land only, both dwelling units labourers/ artisan a) SC, ST/Adivasis b) Others (Please indicate whether these figures are based on any scientific and systematic survey carried out or only provisional figures, if a survey is carried out give details and years of survey)	There is no project-affected population, as the proposed expansion is being carried out entirely within the existing land already acquired and owned by the company. No additional land acquisition is involved, and therefore no displacement, rehabilitation, or resettlement of any population is required.
9.	Financial details a) Project cost as originally planned and subsequent revised estimates and the year of price reference. b) Allocation made for environmental management plans with item wise and year wise break-up.	a) The total project cost includes the existing and proposed cost of the project which is estimated as Rs. 59.88 Crore (Existing: 55.63 Crore + Proposed: 4.25 Crores). **b)** Cost towards Environment management plan Capital cost is 145 lakhs and recurring cost is 14.5 lakhs/year. Details are as follows:

<table>
<tr><th>Sr. No.</th><th>Particulars</th><th>Details</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Sr. No.</th><th>Component</th><th>Description</th><th>Capital cost (In Rs)</th><th>Operational and Maintenance/ Recurring cost (In Rs/yr)</th></tr>
<tr><td>1</td><td>Air Pollution Control System</td><td>Installation of new Bag filter for Ferro Melt Induction Furnace</td><td>100</td><td>10</td></tr>
<tr><td>2</td><td>Water Pollution Control</td><td>Sewage treatment Plant</td><td>10</td><td>1.0</td></tr>
<tr><td>3</td><td>Environmental Monitoring</td><td>Air Quality/online AAQMS</td><td>15</td><td>1.5</td></tr>
<tr><td>4</td><td>Green Belt</td><td>Plantation</td><td>10</td><td>1.0</td></tr>
<tr><td>5</td><td>Rainwater Harvesting System</td><td>Enhansing the existing Rain Water Harvesting System in our plant</td><td>10</td><td>1.0</td></tr>
<tr><td colspan="3">Total</td><td>145 Lacs</td><td>14.5 Lacs/year</td></tr>
</table>
</td></tr>
<tr><td></td><td>c) Benefit cost ratio/ Internal rate of Return and the year of assessment.</td><td>c) 13.43 %</td></tr>
<tr><td></td><td>d) Whether (c) includes the cost of environmental management as shown in the above.</td><td>d)Yes</td></tr>
</table>

Sr. No.	Particulars	Details
	e) Actual expenditure incurred on the project so far.	e) Presently, no additional plant or production machinery has been installed. Only modifications/upgradation of pollution control systems have been carried out to improve environmental performance and ensure regulatory compliance. The proposed enhancement in production will be achieved through optimization of the raw material mix by incorporating high-grade Mn ore and other raw materials. The actual expense incurred on the project as on date Rs. 2.33 crore. The expense details is enclosed as **Annexure I.**
	f) Actual expenditure incurred on the environmental management plans so far	f) AFAL has incurred expenses on Pollution Control System. The actual expenditure incurred on environment management plan @ Rs. 2.33 crores.
	g) Actual expenditure incurred on the CER/CSR	g) Actual expenditure incurred on CER/CSR@Rs. 0.10 cr. approx. from April 2025 to December 2025. CER details are enclosed as **Annexure – II.**
10.	Forest land requirement a) The status of approval for diversion of forest land for non-forestry use b) The status of clearing felling c) the status of compensatory afforestation, if any d) Comments on the viability & sustainability of compensatory Programme in the actual field experience.	None of the forest land was diverted for the project. Hence, not applicable.
11.	The status of clear felling in non-forest areas (such as submergence area of reservoir, approach roads), if any with quantitative information.	The project site falls completely in the premises of Urla Industrial area. Hence, not applicable.

Sr. No.	Particulars	Details
12.	Status of construction a) Date of commencement (Actual and/ or planned). b) Date of completion (Actual and/ or planned).	Presently, no additional plant or production machinery has been installed. Only modifications/upgradation of pollution control systems have been carried out to improve environmental performance and ensure regulatory compliance. The proposed enhancement in production will be achieved through optimization of the raw material mix by incorporating high-grade Mn ore and other raw materials. The expansion activities shall be implemented entirely within the existing plant premises. No additional land acquisition is involved, and there will be no change in the approved land use pattern. Existing infrastructure, utilities, and environmental management systems shall continue to be utilized, and all operations will remain in compliance with the conditions stipulated in the Environmental Clearance and applicable environmental regulations.
13.	Reasons for the delay if the project is yet to start.	Not applicable
14.	Dates of site visits a) The dates on which the project was monitored by the Regional Office on previous occasions, if any. b) Date of site visit for this monitoring report	The recent site inspection has been carried out by Regional Office, CECB Raipur on 23.09.2025. The site visit from IRO, MoEF&CC, New Raipur C.G. is awaited.
15.	Details of correspondence with project authorities for obtaining action plans/ information on status of compliance to safeguards other than the routine letters for logistic support for site visits. (The first monitoring report may contain the details of all the letters issued so far, but the later reports may cover only the letters issued subsequently).	---

CHAPTER 2. EXECUTIVE SUMMARY

<table>
<tr><th>Attribute</th><th>Description</th></tr>
<tr><td>Location</td><td>The project site is located at Urla Industrial Area, Urla, Raipur Tehsil and District, Chhattisgarh, a well-developed industrial hub under the jurisdiction of Chhattisgarh State Industrial Development Corporation (CSIDC). The site is easily accessible via road and rail networks. The nearest road from the project is NH-30 located 2.6 km towards east direction. NH-30 is further connected to the Birgaon Main Road which will also be the approach road for the plant area. Other highways and roads from the project are NH-53 located 7.8 km towards SW & NH-130B at 7.5 km towards SE direction. The nearest railway station from the project is Urkura Railway Station located 4.3 km towards SE direction. The nearest airport from the project is Raipur Airport located about 20 km away from site towards SE direction. The nearest town from the plant is Urla at 0.4 km W.</td></tr>
<tr><td>Land Area</td><td>The total land area of the plot is 7.317 Ha. Out of total plot area, 0.853 Ha land is CSIDC land and the rest i.e., 6.464 Ha land is private purchased land. Land use and land cover of the site is Industrial land. Proposed expansion is planned within the existing premises only. Hence no additional land is required. Approx. 7,683.81 sqm i.e., 10.5% of the area is developed as a green area within the premises.</td></tr>
<tr><td>Size of Project</td><td>The details of production capacity and products is provided below.

<table>
<tr><th>Particular</th><th>Capacity (MTPA)
(After Expansion)</th></tr>
<tr><td colspan="2">Furnace Configuration</td></tr>
<tr><td>SAF</td><td>3 x 4.5 MVA</td></tr>
<tr><td>Ferro Melt Induction Furnace</td><td>1500 KW/2100 Kg</td></tr>
<tr><td colspan="2">Production Capacity</td></tr>
<tr><td>Si-Mn</td><td>19,000 TPA</td></tr>
<tr><td>Fe-Mn</td><td>28,000 TPA</td></tr>
<tr><td>Fe-Si</td><td>9,000 TPA</td></tr>
<tr><td>Pig Iron</td><td>28,500 TPA</td></tr>
<tr><td>Ferro Alloys (SiMn/FeMn) by Ferro-Melt Induction Furnace</td><td>6000 TPA</td></tr>
<tr><td>Power Plant</td><td>8 MW</td></tr>
</table>

Note: Presently, there has been no increase in production capacity. The plant is being operated strictly in accordance with the latest Renewal of Consent to Operate with approved capacities of 14,496 TPA for Ferro Alloys along with a Captive Power Plant (CPP) of 8 MW.</td></tr>
<tr><td>Screening Category</td><td>The Ferro Alloys manufacturing facility is categorized under Major Sector 3(a), Primary Metallurgical Industries – Category 'A', while the Captive Power Plant</td></tr>
</table>

<table>
<tr><th>Attribute</th><th>Description</th></tr>
<tr><td></td><td>component falls under Sector 1(d), Thermal Power Plants – Category 'B' per the Environmental Impact Assessment Notification dated September 14, 2006.</td></tr>
<tr><td>Plant Cost</td><td>Rs. 59.88 Crores. (Existing + Proposed)</td></tr>
<tr><td>Estimated & Revised Cost for EMP</td><td>Cost towards Environment management plan Capital cost is 1.45 crore and recurring cost is 0.145 crore/annum.</td></tr>
<tr><td colspan="2">Resource Requirement</td></tr>
<tr><td>Source of Water & Quantity</td><td>The total water requirement of plant is 860 m^3/day, used for power plant and ferro alloy plant consist of cooling tower, DM plant and domestic purposes primarily sourced from existing borewell within the premises, CSIDC (Chhattisgarh State Industrial Development Corporation) supply and Raipur Municipal Corporation supply. The unit has valid approval from CSIDC and CGWA & agreement with Raipur Municipal Corporation for supply of 3 MLD Sewage Treated Water from 90 MLD STP situated at Village Nimora for Whole group of Companies, out of which 1 MLD water will be drawl for Alok Ferro Alloys Limited. The water balance of plant along with copy of NOC/permission/agreement letter is enclosed as Annexure – III. The monitoring report of surface water supplied by CSIDC is enclosed as Annexure XXXIV.</td></tr>
<tr><td>Fuel</td><td>Total fuel (coal) requirement for the plant operation and captive power plant is 1,33,152 MTPA. The primary fuel in the power plant is various grades of Coal and Rice Husk.</td></tr>
<tr><td>Power</td><td>The total power requirement of the plant is 10.5 MW, which is met through 8 MW Captive Power Plant (CPP) and a 100 kW solar power plant. The balance power requirement is met through power drawn from CSPDCL (Chhattisgarh State Power Distribution Company Ltd.).

The existing power infrastructure is adequate to meet the power demand for the current base-case operations. The plant holds a valid power sanction from CSPDCL. In case of emergency or power outage, backup power is provided through operational DG set of 125 kVA capacity.</td></tr>
<tr><td>Raw Material</td><td>The project site is located near the State Highway and National Highway. Ther raw material and products can easily be transported. All the raw materials are indigenous raw material except Manganese Ore. It is being imported from other countries at Vishakhapatnam Port and then transported to site through road.

The raw material yard storage capacity is provided below:

<table>
<tr><th rowspan="2">S. No.</th><th rowspan="2">Raw Material</th><th colspan="2">Storage Capacity (MT)</th></tr>
<tr><th>Existing</th><th>After Expansion</th></tr>
<tr><td colspan="4">FERRO ALLOYS</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Attribute</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><td>1</td><td>Manganese Ore</td><td>20000</td><td>25000</td></tr>
<tr><td>2</td><td>Coal</td><td>7500</td><td>10000</td></tr>
<tr><td>3</td><td>Coke</td><td>3000</td><td>5000</td></tr>
<tr><td>4</td><td>Dolomite</td><td>1000</td><td>1200</td></tr>
<tr><td>5</td><td>Carbon Paste</td><td>150</td><td>200</td></tr>
<tr><td>6</td><td>Quartz</td><td>4000</td><td>5000</td></tr>
<tr><td>7</td><td>Slag</td><td>1500</td><td>2000</td></tr>
<tr><td colspan="4">POWER PLANT</td></tr>
<tr><td>8</td><td>Coal/ Reject Coal/ Dolochar</td><td>60000</td><td>60000</td></tr>
<tr><td>9</td><td>Rick Husk</td><td>3000</td><td>3000</td></tr>
</table>

The quantity of total raw material requirement post expansion of project is provided below.
<table>
<tr><th>S. No.</th><th>Raw Material</th><th>Storage Capacity (MT) After Expansion</th></tr>
<tr><td>1</td><td>Manganese Ore</td><td>70,000</td></tr>
<tr><td>2</td><td>Coal</td><td>7,600</td></tr>
<tr><td>3</td><td>coke/ Charcoal</td><td>12,040</td></tr>
<tr><td>4</td><td>Dolomite/ Limestone</td><td>9,975</td></tr>
<tr><td>5</td><td>Carbon Paste</td><td>840</td></tr>
<tr><td>6</td><td>High Mn Slag</td><td>5,700</td></tr>
<tr><td>7</td><td>Iron Ore/Iron Ore Fines</td><td>54,150</td></tr>
<tr><td>8</td><td>Quartz.</td><td>18,000</td></tr>
<tr><td>9</td><td>Electrode Paste</td><td>713</td></tr>
<tr><td>10</td><td>Mill Scale</td><td>14,535</td></tr>
<tr><td colspan="3">Power Plant</td></tr>
<tr><td>11</td><td>Reject Coal/ Dolochar/Coal</td><td>1,33,152</td></tr>
</table>
</td></tr>
<tr><td>Wastewater Generation</td><td>The total wastewater generation from the production unit is 260 KLD of which cooling tower blowdown is 160 KLD and rejected water is 60 KLD. The effluent generation of 220 KLD is being collected in two separate RCC tanks made for collection and treatment of waters in which the suspended solids got settled in tank-I through gravity and this water is collected in tank - II. The water is further processed through charging of lime and bleaching for balancing of PH. For COD and BOD balancing in the tank, air pipes are separately arranged and blown up in regular intervals. After completion of all the process the treated water is supplied through pumps where all the water is pumped and reused in the plant.

The domestic wastewater generation is 40 KLD which is being treated through 100 KL Sewage Treatment Plant within the project premises and reused for gardening and other purposes. This closed-loop system ensures no effluent discharge</td></tr>
</table>

Attribute	Description
	outside plant premises, complying with Zero Liquid Discharge (ZLD) norms.
Environmental Management System	
Existing Effluent Treatment Plant	Presently, no water is used in the production process of ferro alloys. Water is utilized only for cooling purposes in a closed-loop recirculating system. However, the effluent generated is collected in two separate RCC tanks designed for collection and treatment. In Tank-I, suspended solids are allowed to settle by gravity. The clarified water is then transferred to Tank-II, where further treatment is carried out. Lime and bleaching agents are dosed for pH correction. For reduction and stabilization of COD and BOD levels, air is supplied through dedicated aeration pipes at regular intervals. After completion of the treatment process, the treated water is pumped and reused within the plant premises. Therefore, there is no requirement of Effluent Treatment Plant currently.
Flue Gas Emission	Flue gases emission generated in the furnace section are discharged into the atmosphere after passing through pollution control equipment comprising a heat exchanger, ID fan, and bag filter to meet the regulatory standard specified. The ID fan and chimney ensure effective dispersion, maintaining a pollution-free working area and surrounding atmosphere. Further, the flue gas from 8 MW CPP, equipped with a 3-field ESP, is discharged through a 73-meter stack.
Process Gas Emission	The major air pollutants from AFAL plant operations are particulate matter (PM), SO_2, NO_x, and CO, generated from the Captive Power Plant (CPP), ferroalloy furnaces, and raw material handling systems. The emissions generated from ferroalloy furnaces are controlled through high-efficiency Reverse Pulse Jet Bag Filters with ID fans, water mist and fogging system, dry-type gas cleaning systems, and treated gases are discharged through chimneys of adequate height after post-combustion/incineration. The CPP is equipped with a three-field high-efficiency ESP along with 73 m stack to control particulate emissions, and lime dosing in coal is practiced to reduce SO_2 emissions. Semi-closed Submerged Electric Arc Furnaces (SEAF) are provided with a 4th-hole fume extraction system, bag filters, and stacks of adequate height for safe dispersion of exhaust gases. Fugitive emissions from material handling, crushers, screens, and dolomite/lime conveying systems are controlled through localized bag filters, enclosure, and dust suppression systems. Online Continuous Emission Monitoring Systems (OCEMS) are installed on all major stacks and connected to CPCB servers, and a Continuous Ambient Air Quality Monitoring Station (CAAQMS) is installed and linked to the CECB server.
Hazardous	During plant operations, various types of hazardous waste are generated, with slag

<table>
<tr><th>Attribute</th><th>Description</th></tr>
<tr><td>Wastes & Disposal Method</td><td>
from ferro alloy and pig iron plant production constituting the majority. Efforts are made to reuse or sell these wastes to recyclers or other industrial users. Moreover, Hazardous waste is also generated, which are resure or sold out to authorized recyclers and managed in strict compliance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2024. Plant has valid Hazardous Waste Authorization issued by CECB.

The types and categories of hazardous waste generated during plant operations are identified in accordance with applicable regulations. Details of hazardous waste generation, classification, and disposal methods are summarized below.
<table>
<tr><th>Sr. No</th><th>Type of waste</th><th>Cat. & Sch</th><th>Quantity (MTPA)</th><th>Disposal Method</th></tr>
<tr><td>1</td><td>Si-Mn Slag</td><td>-</td><td>19,000</td><td>Used for filling of low-lying area/land filling/ construction purpose/ sell to Cement plant.</td></tr>
<tr><td>2</td><td>Or Fe-Mn Slag</td><td>-</td><td>22,400</td><td>Reused as raw material in manufacturing of Silico Manganese/ Sold to Si-Mn Manufacturers.</td></tr>
<tr><td>3</td><td>Or Pig-Iron Slag</td><td>-</td><td>37,050</td><td>Used for filling of low-lying area/land filling/ construction purpose/ sell to Cement plant.</td></tr>
<tr><td>4</td><td>Or Fe-Si slag</td><td>-</td><td>1125</td><td>Used for filling of low-lying area/land filling/ construction purpose/ sell to Cement plant.</td></tr>
<tr><td>5</td><td>Bag Filter dust</td><td>-</td><td>900</td><td>Sent to Cement plants</td></tr>
<tr><td>6</td><td>Used/spent oil</td><td>5.1 (Sch I)</td><td>2 KLPA</td><td>To authorized recycler.</td></tr>
<tr><td>7</td><td>Spent oil exchange resin containing toxic metals</td><td>34.2 (Sch I)</td><td>0.004 MT</td><td>To be utilized for energy recovery in Boiler for steam or power generation.</td></tr>
<tr><td>8</td><td>Empty Barrels/ Containers/liners contaminated with hazardous chemicals/wastes</td><td>33.1 (Sch I)</td><td>10 Nos.</td><td>Sold to Authorized Recyclers</td></tr>
<tr><td>9</td><td>Waste or residue</td><td>5.2</td><td>01</td><td>Sold to Authorized Recyclers</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Attribute</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><td></td><td>containing oil</td><td>(Sch I)</td><td>MT/ Year</td><td></td></tr>
<tr><td>10</td><td>Contaminated cotton rags or other cleaning materials</td><td>33.2 (Sch I)</td><td>0.5 MT/ year</td><td>Disposal through CTSDF/ Co-processing in cement plant</td></tr>
<tr><td>11</td><td>Oil and grease skimminig</td><td>35.4 (Sch I)</td><td>0.5 MT/ year</td><td>Sold to Authorized Recyclers</td></tr>
<tr><td>12</td><td>Glass wool</td><td>C4, Sch II</td><td>1.0 MT/ year</td><td>Disposal through CTSDF</td></tr>
<tr><td>13</td><td>Fly Ash</td><td>-</td><td>54325</td><td>Sold out to bricks manufactures</td></tr>
<tr><td>14</td><td>Botton Ash</td><td>-</td><td>9587</td><td>Sold out to bricks manufactures</td></tr>
</table>

The monitoring report of slag is enclosed as Annexure XXXVI.</td></tr>
<tr><td>Green Belt Development</td><td>AFAL has completed 40% greenbelt development (incorporating within and outside the plant premises) of the total project plot area. A total area of approximately 7683.81 sqm, accounting for about 10.5% of the total plot area, has been developed as greenbelt within the plant premises. This internal greenbelt is strategically distributed along the plant periphery, internal roads, open spaces, and near major emission-generating units to act as a primary barrier for attenuation of air pollutants, noise reduction, and microclimate moderation. In addition, an area of approximately 21,974.4 sqm, constituting about 30% of the total plot area, has been developed as greenbelt outside the plant premises. These off-site greenbelt locations supplement the on-site plantation and contribute to regional ecological improvement and pollution mitigation.

As part of the plantation programme, approximately 1,517 trees have been planted within the plant premises, while about 6,130 trees have been planted outside the premises, taking the total plantation to nearly 7,647 trees. Planting has been carried out in a multi-tier pattern comprising trees, shrubs, and ground cover to enhance pollutant interception efficiency and ecological stability. The species selected for plantation include native, fast-growing, evergreen, and pollution-tolerant varieties with dense and broad canopies. Emphasis has been placed on species possessing hairy, rough, or waxy leaf surfaces, which are known to be effective in trapping and adsorbing particulate matter (PM_{10} and $PM_{2.5}$), thereby reducing its re-suspension and dispersion into the ambient air.</td></tr>
</table>

<table>
<tr><th>Attribute</th><th>Description</th></tr>
<tr><td></td><td>
<table>
<tr><th>S. No.</th><th>Location of Plantation</th><th>Plantation Area (Sqm)</th><th>Percentage (%)</th><th>Trees Planted (Nos)</th></tr>
<tr><td>1</td><td>Inside Premises</td><td>7683.81</td><td>20.5</td><td>1517</td></tr>
<tr><td>2</td><td>Outside Premises</td><td>21974.4</td><td>40</td><td>6130</td></tr>
<tr><td></td><td>Total</td><td>29658.21</td><td>40.5</td><td>7647</td></tr>
</table>
</td></tr>
<tr><th colspan="2">Environmental Management Plan</th></tr>
<tr><td>Water Environment</td><td>The plant has an integrated water management system comprising make-up water system, drinking water and DM water system as well as emergency water supply system for the vital units of the plant operating under a Zero Liquid Discharge (ZLD) regime with no discharge outside the plant boundary.

Industrial wastewater generated from DM plant regeneration, softener backwash, and cooling-tower blow-down is collected and treated through neutralization using lime and bleaching agents, followed by air scouring and sedimentation for reduction of COD, BOD, and suspended solids.

Domestic sewage is treated in a 100 KLD Sewage Treatment Plant (STP) employing preliminary, primary, biological, and tertiary treatment processes, ensuring complete reuse and compliance with ZLD requirements.</td></tr>
<tr><td>Air Environment</td><td>The major air pollutants from AFAL plant operations are particulate matter (PM), SO_2, NO_x, and CO, generated from the Captive Power Plant (CPP), ferroalloy furnaces, and raw material handling systems. The emissions generated from ferroalloy furnaces are controlled through high-efficiency Reverse Pulse Jet Bag Filters with ID fans, water mist and fogging system, dry-type gas cleaning systems, and treated gases are discharged through chimneys of adequate height after post-combustion/incineration. The CPP is equipped with a three-field high-efficiency ESP along with 73 m stack to control particulate emissions, and lime dosing in coal is practiced to reduce SO_2 emissions.

Fugitive emissions from material handling, crushers, screens, and dolomite/lime conveying systems are controlled through localized bag filters, enclosure, and dust suppression systems. Online Continuous Emission Monitoring Systems (OCEMS) are installed on all major stacks and connected to CPCB servers, and a Continuous Ambient Air Quality Monitoring Station (CAAQMS) is installed and linked to the CECB server.</td></tr>
<tr><td>Noise Environment</td><td>Noise will primarily be generated from process equipment such as Submerged Electric Arc Furnaces (SAF – 3 x4.5 MVA), AFBC Boiler (38 TPH), Turbine (8 MW), bag filters / ESP systems, cooling towers, ID/FD fans, air compressors, material-</td></tr>
</table>

Attribute	Description
	handling conveyors, and intermittent DG sets (for emergency only). Vehicular movement for raw-material delivery and product dispatch will also contribute marginally. Since the facility lies in an established industrial estate, these impacts will remain localized within the premises, and attenuated significantly by the peripheral greenbelt and masonry boundary wall. Further, Noise control measures include the use of silencers on equipment, provision of earmuffs to workers, regular maintenance of machinery, and development of green buffer zones to minimize noise impact. Only properly certified, tested, and calibrated equipment is be used. DG sets with inbuilt acoustic enclosures were installed and operated only during emergency conditions.

CHAPTER 3. POINT-WISE COMPLIANCE OF THE ENVIRONMENTAL CONDITIONS

The below Compliance of environmental conditions is in respect of the expansion of Ferro Alloys Production Unit.

Table 2.1: Compliance of Environmental Conditions given in Part A- Specific Conditions for Metallurgical Industries (Ferrous and Non-Ferrous)

S.No.	Environmental Conditions	Compliances
1	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	The condition is noted and accepted. The Project Proponent undertakes to abide by the final outcome of any proceedings before the Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble National Green Tribunal (NGT), or any other court of law, as applicable. **Complied**
2	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.	The Project Proponent is being complied with and shall continue to comply with all environmental protection measures and safeguards as proposed in the documents submitted to the Ministry. All recommendations of the approved EIA/EMP relating to environmental management and risk mitigation measures are being implemented. **Being Complied**
3	The project proponent shall utilize modern technologies for capturing carbon emission and shall also develop adequate carbon sink/ carbon sequestration resources with an aim to meet the carbon neutrality mission in a time bound manner. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.	The configuration of the Ferro Alloys production unit demonstrates lower environmental impacts compared to the base case due to the implementation of a combination of energy efficiency measures, cleaner energy integration, process optimization, and carbon sequestration initiatives, as established through the Life Cycle Assessment (LCA) results. • Energy-efficient induction furnaces and process optimization to reduce specific energy consumption. • Captive power generation with optimized fuel mix and high-efficiency systems to minimize Scope-1 and Scope-2 emissions. • Advanced air pollution control systems (bag filters, stacks of adequate height) to control and reduce process-related emissions. • Periodic monitoring and review of GHG emissions will be undertaken, and additional best available technologies will be adopted progressively for further

		reduction. • The unit has implemnted large-scale greenbelt and plantation programs within plant and outside the plant premises at identified off-site locations such as Muktidham–Birgaon and Urkura (Government land). • The year-wise carbon sequestration potential from these plantations, demonstrating measurable CO_2 absorption over time and contributing directly towards offsetting residual emissions • **Time-Bound Carbon Neutrality Roadmap** ➢ Short-term: Reduction of emissions through energy efficiency, optimized fuel use, and process improvements. ➢ Medium-term: Enhancement of greenbelt and off-site plantations to increase annual carbon sequestration. ➢ Long-term: Continuous reduction in emission intensity and expansion of carbon sinks to progressively offset remaining emissions and move towards **carbon neutrality**. The copy of LCA is enclosed as **Annexure IV.** **Complied**
4	In pursuance to MoEF&CC OMs dated 31st October,2019 & 30th December,2019 issued in compliance of the order of Hon 'ble NGT in OA No.1038/2018 dated 19th August,2019, the compliance of all the condition applicable to CEPI areas shall be implemented as per the submitted plan.	The compliance of all conditions applicable to CEPI areas has been implemented in accordance with the plan submitted in the EIA/EMP report. The details of compliance are provided below. • There has been no fresh establishment, and no alteration or modification has been undertaken in the main furnace. • High-efficiency bag filters and gas cleaning facilities have been installed. • Ferro Alloys unit has modified pollution control system to achieve emission below 30 mg / Nm3. • The air-to-cloth ratio in the gas cleaning plant for stack emission control is being maintained within the range of 1.2 to 1.1. • All existing filter bags are being replaced with high density polyester needle bags (PTEF membrane laminated fabrics (best upgrade) with adhesive treatment to improve dust capture and operational performance.

		• Dust generated from the semi-closed Submerged Arc Furnace (SAF) is captured through a dry-type gas cleaning plant resulting in clean gas post-combustion or incineration which subsequently released through an appropriately elevated chimney following filtration through bag filters. • Electrostatic Precipitator (ESP) along with 73 m stack height has been installed to reduce the air emissions from the stack of the power plant. • Adequate Water sprinklers will be provided into the raw material handling system, including the ground hopper and conveyor systems. • Transportation of raw materials and finished products is presently carried out exclusively through road transport, as other modes of transportation are not feasible presently. • Lime dosing is being done to coal to reduce the sulphur content. • Online Continuous Emission Monitoring system (OCEMS) has already been installed to Submerged Arc furnace and Boiler. The detailed compliance to the conditions is enclosed as **Annexure V.** **Being Complied**
5	Urla village is at 0.3 km towards West, Birgaon at 0.9 km in East of the project site along with other sensitive areas within the study area of the project site. Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the local. The project proponent needs to strengthen green belt all around in plant area to reduce the dust pollution. The PP shall also include some of these locations in its environment monitoring programme.	The nearest village i.e., Urla Village is located at 0.4 km, W. Village is located in upwind direction. These habitations will experience transient exposure to fugitive dust or low-level stack emissions during calm meteorological periods or under low wind dispersion. However, considering the sensitivity of the area, all environmental protection measures are already adopted in the plant like Electrostatic Precipitators (ESP), multiple bag filters, water fogging systems, and mist cannons. The captive power plant is also equipped with a 3-field Electrostatic Precipitators (ESP) for treatment of flue gas generated which further discharged through the installed stack. Plantation and heighted Boundary wall have been developed within and across the plant boundary to eliminate/reduce impact on the sensitivity area near the plant location. Further, the nearby sensitive locations is

		also considered for environmental monitoring for the project unit. **Being Complied**
6	There are water bodies reported within the study area of the project site. A robust and foolproof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.	The project site is not located in the vicinity of any water body. The nearest water body is the Kharun River, situated at a distance of approximately 3.1 km from the project site. **Not Applicable**
7	After expansion, the freshwater requirement will remain same i.e., 600 KLD. Plant has valid for approval from CSIDC and CGWA & agreement with Raipur Municipal Corporation for supply of 3 MLD Sewage Treated Water from 90 MLD STP situated at Village Nimora for Whole group of Companies, out of which 1 MLD water will be drawl for Alok Ferro Alloys Limited. PP shall obtain necessary water permission from the Competent Authority in this regard as applicable.	The total water requirement of plant is 860 m^3/day, used for cooling, steam generation and domestic purposes primarily sourced from existing borewell within the premises, CSIDC (Chhattisgarh State Industrial Development Corporation) supply and Raipur Municipal Corporation supply. AFAL has valid approval from CSIDC and CGWA & agreement with Raipur Municipal Corporation for supply of 3 MLD Sewage Treated Water from 90 MLD STP situated at Village Nimora for Whole group of Companies, out of which 1 MLD water will be drawl for Alok Ferro Alloys Limited. The water balance diagram, CSIDC water availability certificate, CGWA NOC and agreement copy is enclosed as **Annexure III.** **Complied**
8	PP shall undertake stringent measures to minimise the levels of PM 10 and PM 2.5.	The Project Proponent has undertaken and implemented a project-specific Ambient Air Quality (AAQ) Management Plan to effectively minimize the levels of PM10 and PM2.5. This includes installation and proper operation of air pollution control devices such as electrostatic precipitators (ESP), bag filters, regular water sprinkling on roads and material handling areas, control of fugitive emissions through closed operations and enclosures, paving of internal roads, and development of green belt/plantation within and along the project boundary. Further, below are the mitigation measures implemented to minimize the levels of PM 10 and PM 2.5. • All SEAFs stack is fitted with pulse-jet bag filters and CPP is fitted with 3-field ESPs achieving ≥ 99.9 % dust removal. • Fogging, DFDS (Dry Fog Dust Suppression System), deployed in material conveying system, loading and storage areas; mechanized road sweeping minimizes dust resuspension.

		• Quarterly foliage washing of greenbelt trees with treated STP water restores photosynthetic efficiency. • Enclosed conveyors, paved yards, and covered stockpiles reduce off-site dust drift. Also, vehicle movement is regulated through enforcement of speed limits and permitting only PUC-certified vehicles. Further, regular ambient air quality monitoring is carried out by the unit, and a Continuous Ambient Air Quality Monitoring Station (CAAQMS) has been installed to ensure continuous tracking and compliance with prescribed standards. Furthermore, the species selected for plantation include native, fast-growing, and evergreen varieties with high foliage density and strong pollution attenuation potential. Emphasis is given to hairy-leaf species which are effective in capturing particulate matter (PM), thus reducing its propagation in the ambient air. Further, AFAL has provided water tanker for regular and periodic water sprinkling on the nearest approach roads and in surrounding villages. This measure is undertaken to suppress dust, minimize fugitive dust emissions arising from vehicular movement, and improve ambient air quality in the nearby habitations. **Being Complied**
9	Three tier Green Belt shell be developed and maintained in atleast 40% of the project area, 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 2x2m 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 sensitive areas nearby project site. PP shall maximize greenbelt development within the plant premises to the extent possible. An action plan detailing the proposed greenbelt plan, including timelines and specific commitments shall prepared and implemented. Compliance	AFAL has developed 40 % of greenbelt w.r.t to total project Area. Out of total greenbelt area, approx. 7683.81 sqm i.e., 10.5% of the area is developed as a green area within the project premises and 21974.4 sqm i.e., 30% of the total plot area is developed outside the premises. The outside plantation is done at Birgaon Muktidham and Urkura villages. Approx. 1517 nos. of trees have been planted inside the plant premises and approx. 6130 Nos. of trees have been planted outside the premises. More than 80 % survival rate maintained through annual replantation and compost

	status in this regard, shall be submitted concerned Regional office of the MOEF&CC.	enrichment. Green belt of approximate width ranges from 40 m to 160 m has been developed all along the boundary of the premises, which acts as a buffer for dust, noise, and air pollutants. The plantation includes a diverse mix of flora, comprising majority of 36 different species of trees and plants, carefully selected and developed within the premises and along the boundary to enhance ecological balance and improve the overall environmental quality. The physical verification monitoring and evaluation of plantation report is enclosed as **Annexure VI.** AFAL has also conducted the campaign 'Ek Ped Mee Ke Neem' and the evidence for the same is enclosed as **Annexure VII.** **Complied**
10	The PP shall undertake plantation, in compliance to MoEFCC OM dated 24.07.2024, in the earmarked 33% or 40% greenbelt area, as the case may be, as a part of tree plantation campaign 'Ek Ped Mee Ke Neem' campaign and the details of the same shall be uploaded on MeriILiFE portal at (https;// merilife.nic.in)	
11	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 30.9.2020 shall be strictly implemented, which is amounting to Rs. 244.88 Lakhs. The action plan shall also cover activities related to (i) promotion of environmental education and awarness, and (ii) sub-plan to address the vulnerable sections (such as the elderly, children, pregnant women, persons with disabilities, and the terminally ill. An institutional mechanism shall be developed for monitoring the implementation of the commitments made, which shall also manage and address public grievnaces. The progress of implementation of PH Action Plan and grievance redressal shall be submitted regularly to the Regional Office of MoEF&CC.	AFAL is committed to implement facilities for improvement of infrastructural facilities for the local people in the field of Environmental and Medical. Moreover, CSR Activities is common for our group of companies under HIRA CSR Foundation. AFAL has implemented the following activities as part of their CER initiatives for the community development. • Green belt development and boundary wall white washing & painting work at Nearest villages. • Greenbelt development at Birgoav Muktidham beautification under CSR • Greenbelt development at Urkura site on alloted govt. Land (4 Acre). • Achholi Sheetla Talab_Pacharikaran and Gaharikaran • Shulabh Shouchalay by HIRA group • Aakanksha lions school for mentally handicapped under HIRA CSR foundation. • Cancer screening van BALCO hospital _under HIRA CSR foundation • English education project for primary and middle school-step up for India under HIRA CSR foundation • F-95 advance physiotherapy & research centre (a unit of HIRA CSR foundation) • Old age home gomchi (Maa
12	The project proponent shall undertake village adoption programme, as committed, and prepare and implement the action plan to develop them into a model village, in consultation with the State Administration.	
13	PP shall implement the skill development programs, proposed under Socio economic development Action Plan, in alignment with relevant Government initiatives/ programmes (like Mission LiFE, ODOP, GSDP, etc.) to enhance employability and livelihood opportunities for local communities. These programs shall be designed in consultation with the concerned authorities, such as the District Skill Development Mission, State	

	Government Agencies, or other relevant institutions. A detailed action plan and monitoring mechanism (covering target beneficiaries, training modules, and expected outcomes) to be prepared for the above. Periodic progress reports shall be maintained, and submitted to Ro MoEFCC.	Godawari Anand Vridhashram) under HIRA CSR foundation The details and photographs along with details of expense made is provided in **Annexure II.** **Complied**
14	PP shall install CO sensors with alarm at strategic locations in the plant.	The unit has initiated the procurement of Carbon Monoxide (CO) sensors with audible and visual alarm systems at strategic locations across the plant for continuous monitoring and safety. The same shall be installed in due course. The work order copy is enclosed as **Annexure VIII.** **Being Complied**
15	PP shall implement cleaner production and waste minimization measures, and initiate coordinated action on activities of environmental awareness, education and conservation (covering plantation, solar energy, water harvesting, plastics, waste management, green skills, etc.) through a dedicated institutional mechanism. The actions shall be monitored reported to RO MoEFCC on regular basis through the self compliance reporting mechanism.	AFAL has adopted cleaner production practices and waste minimization measures to reduce environmental impacts and improve resource efficiency. Efforts are focused on optimal utilization of raw materials, reduction of waste generation at source, and promotion of recycling and reuse wherever feasible. Under CSR/CER initiatives, AFAL undertakes environmental awareness and education programs, conservation activities, plantation drives to enhance green cover, and adoption of renewable energy sources such as solar power to reduce carbon footprint. A comprehensive waste management plan is implemented for the safe handling, treatment, and disposal of all wastes in compliance with applicable environmental regulations. Additionally, all environmental mitigation measures and management plans proposed in the Environmental Management Plan (EMP) shall be effectively implemented to ensure statutory compliance and continual environmental improvement. **Being complied**
16	The project proponent shall take immediate corrective action to address the non-compliances identified in the Certified Compliance Report of the Consent to Operate issued by Chhattisgarh Environment Conservation Board. Full compliance with all conditions under the Air and Water Acts shall be ensured, and a compliance report shall be submitted to the concerned regulatory authority and kept on record for verification.	All the conditions stipulated in Consent to Operate have been complied. Certified Compliance Report shall be submitted at the earliest. **Being complied**
17	The project proponent shall conduct periodic	The soil health monitoring is being

	soil health monitoring in and around the plant premises, including agricultural fields within a 5 km radius, to assess potential impacts from industrial operations. Soil samples shall be analyzed at least twice a year for parameters including pH, electrical conductivity, organic carbon, macronutrients (N,P,K), micronutrients (Zn, Fe, Mn, Cu) and heavy metals (As, F, Pb, Hg, Cd, Cr). The results shall be recorded, compiled and submitted to the State Pollution Control Board and Regional Office of MoEFCC, and remedial measures shall be undertaken in case of any adverse trends.	conducted in around the plant area to assess potential impacts from the unit operation. The soil monitoring report is enclosed as **Annexure IX.** **Complied**
18	PP shall ensure that the existing and proposed project/activities are compliant with extant order of Government of Chhattisgarh regarding ban on establishment of New Sponge Iron Plants, Coal based power plants in Urla, Siltara, Borjara areas in Raipur district, if applicable and directives of State PCB in this regard shall be adhered to.	The unit ensures that the project activities are in full compliance with the extant orders issued by the Government of Chhattisgarh regarding the ban on establishment of new Sponge Iron Plants and coal-based power plants in the Urla, Siltara, and Borjara areas of Raipur district, as applicable. The proposed project does not involve establishment of any new sponge iron plant or coal-based power plant in the said notified areas. Further, all directives, guidelines, and conditions issued by the State Pollution Control Board (SPCB) from time to time are being strictly adhered to, and compliance shall be ensured on a continuous basis. **Being Complied**
19	The PP shall ensure compliance of OM dated 14-01-2025 regarding streamlining the implementation of GST 702 and GSR dated 12-11-24 through which project requiring prior EC were exempted from requirement of CTE.	The Project Proponent has ensured compliance with the OM dated 14.01.2025, under which the said project with prior Environmental Clearance is exempted from the requirement of Consent to Establish (CTE). **Complied**

Table 2.2: Compliance of Environmental Conditions given in Part B- Standard Conditions for Metallurgical Industries (ferrous and non-ferrous)

S.No.	Environmental Condition	Compliances
1.	**Statutory Compliances**	
1.1	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	The Project Proponent acknowledges that the EC is granted under the EIA Notification, 2006 and its amendments and does not substitute any other statutory approvals. All applicable permissions, consents, and compliances under relevant Acts and Rules has been obtained separately. **Being Complied**

	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.	
1.2	This Environmental clearance is granted subject to final outcome of Hon'ble supreme court of India Hon'ble NGT and other Court of Law, if any, as may be applicable to this project.	The condition is noted and accepted. The Project Proponent undertakes to abide by the final outcome of any proceedings before the Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble National Green Tribunal (NGT), or any other court of law, as applicable. **Complied**
2.	**Air Quality Monitoring and Preservation**	
2.1	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.	In line with regulatory requirements, the Unit has installed a 24×7 Online Continuous Emission Monitoring System (OCEMS) to all major stacks i.e. Submerged Arc Furnace (SAF) and Captive Power Plant (CPP) to monitor stack emissions and a Continuous Ambient Air Quality Monitoring Station (CAAQMS) to monitor ambient air quality parameters across the project premises. Further, the monitoring report for stack emissions is enclosed as **Annexure XXXIII.** The data generated through AAQ and OCEMS monitoring is reviewed quarterly and forms the basis for adaptive environmental planning, reporting to statutory authorities, and continuous improvement under ISO 14001 EMS protocols. Online Continuous Emission Monitoring System (OCEMS) is connected to both CECB and CPCB online servers whereas Continuous Ambient Air Quality Monitoring system (CAAQMS) is connected to CECB server to ensure ongoing compliance and real-time data visibility. These systems are regularly calibrated as per the equipment supplier's specifications through laboratories recognized under the Environment (Protection) Act, 1986, or NABL-accredited laboratories to ensure accuracy and reliability of the monitoring data. The photographs of installed OCEMS and CAAQMS is enclosed as **Annexure X.** **Being Complied**
2.2	The project proponent shall carryout Continuous Ambient Air Quality monitoring for	A Continuous Ambient Air Quality Monitoring Station (CAAQMS) has been installed to monitor ambient air quality parameters across the project premises and connected to CECB server. Further, the ambient air quality monitoring is conducted for main

	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.	pollutants (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. The ambient air quality monitoring report is enclosed as **Annexure XI.** **Being Complied**
2.3	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter though laboratories recognized under Environment (protection)Act,1986 or NABL accredited laboratories.	The unit has conducted monitoring of fugitive emissions within the plant premises through NABL-accredited laboratory. The monitoring report is enclosed as **Annexure XII.** **Being Complied**
2.4	Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.	The Unit has provided sampling facilities at process stacks in accordance with CPCB guidelines to enable manual monitoring of emissions. These facilities ensure accurate collection of samples for periodic analysis and verification of compliance with the prescribed emission standards. The photograph of sampling facility at process stack is provided below.

		  Complied
2.5	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.	The Unit has implemented a comprehensive Air Pollution Control (APC) strategy to manage and minimize emissions from all dust-generating sources within the plant. For point sources, such as process stacks, suitable APC systems i.e., ESP, bag filters, mist cannons, dry gas cleaning units, ID & FD Fans, Pipes, Pulse Jet, Dust Collector have been installed and are operated regularly to capture particulate matter and control gaseous emissions in compliance with the prescribed standards. The technical specifications of Bag filters and ESP are attached as **Annexure XIII.** Fugitive dust emissions from material handling, storage yards, transportation, and other vulnerable areas are controlled through multiple measures. These include regular water sprinkling on roads and open areas, covering of raw material and product storage, use of closed conveyors and transfer points, and maintenance of proper operational practices. Additionally, green belts and tree plantations around the plant boundary act as natural barriers to further reduce dust dispersion. Fugitive emission monitoring reports are attached as **Annexure XII.** Periodic inspection, maintenance, and monitoring of all APC systems are carried out to ensure their efficiency. Emissions from both point and fugitive sources are regularly measured, and corrective actions are taken immediately if any deviations from standards are observed. The photographs of Air Pollution Control System installed at the premises is enclosed as **Annexure XIV.** **Being Complied**
2.6	The project proponent shall provide leakage detection and mechanized bag cleaning	The unit has opted the following methods for better maintenance of bags. • Pneumatic conveying system for bag cleaning.

	facilities for better maintenance of bags.	• Regular monitoring is being carried out by Maintenance Team. • Sufficient spare inventory of filter bags, solenoid valves, mist nozzles, and pulse control modules is maintained on-site. • Preventive maintenance schedules are implemented for baghouses, ESP, fogging system, Water sprinklers and mist cannons to ensure consistent APCS uptime. **Being Complied**
2.7	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, regularly.	The unit has provided outdoor machine floor sweeper at the premises for road cleaning of the premises. Further, the shop floors and other project premises area is being cleaned manually. The photographs of the cleaning conducted at the premises is provided as **Annexure XV.** **Complied**
2.8	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.	The unit has ensured covered transportation and conveying of raw materials to prevent spillage and dust generation. The leakage proof truck dumpers are being used for carrying coal and other raw materials and cover with tarpaulin sheet to avoid fugitive emissions generated from the transportation of raw materials by road. The photographs of covered transportation and conveying of raw material is enclosed as **Annexure XVI.** **Being Complied**
2.9	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 .	Iron ore fines, coal and coke fines, lime fines, and other process fines collected from pollution control devices and vacuum cleaning systems are stored in one ton gunny bags and post briquetted/agglomerated, these will be further reused within the manufacturing process. Any surplus material, if generated, is handled through sealed containers for interim storage and transfer, including external sale where applicable. No outdoor piling of fines is practiced. Regular and periodic cleaning, along with routine housekeeping, is carried out to ensure effective material recovery, prevent fugitive dust emissions, and maintain a clean and environmentally safe working environment. **Being complied**
2.10	The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.	The unit has provided Fourth-hole extraction system in SAF units as part of the standard design to ensure the future adaptability, ensuring efficient removal of high-temperature process gases. The extraction of process fumes and gaseous emissions is effectively controlled through a dedicated Fume Extraction System (FES) installed at all major emission sources. The

		extracted fumes are conveyed through a well-designed ducting network to a high-efficiency Bag Filter, where particulate matter is captured and removed. The treated exhaust gases, after achieving prescribed emission norms, are discharged into the atmosphere through an adequately designed stack of appropriate height to ensure effective dispersion and regulatory compliance. Inlet suction ducts are attached to the furnace hood and connected to the bag house through a heavy-duty ID fan. The flue gases pass through an air-cooling heat exchanger to reduce their temperature before entering the bag house. **Complied**
2.11	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.	The unit does not maintain any raw material piles within the premises. Raw materials are fed into the ground hopper through dumpers and pay loaders and are subsequently conveyed to storage bunkers via a belt conveyor system. Separate storage bunkers are provided in the stock house for different raw materials, which are fed through reversible conveyors. **Not Applicable**
2.12	Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.	A suitable ventilation system has been provided to ensure adequate air changes in all tunnels and motor houses, in line with prevailing industrial safety and ventilation norms. The system is designed to maintain acceptable levels of temperature, humidity, and air quality by effective removal of heat, fumes, and dust generated during operation. Both natural and mechanical ventilation arrangements have been incorporated, wherever applicable, to ensure continuous fresh air circulation and a safe working environment for personnel. **Complied**
2.13	Pollution control system in the plant shall be provided as per the CREP Guidelines of CPCB.	CREP Guidelines of CPCB is not applicable for Ferrous Alloys Plant. **Not Applicable**
2.14	The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabrics (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall	The major air pollutants from AFAL plant operations are particulate matter (PM), SO_2, NO_x, and CO, generated from the Captive Power Plant (CPP), ferroalloy furnaces, and raw material handling systems. The emissions generated from ferroalloy furnaces are controlled through high-efficiency Reverse Pulse Jet Bag Filters with ID fans, water mist and fogging system, dry-type gas cleaning systems, and treated gases are discharged through chimneys of adequate height after post-combustion/incineration. The unit has implemented Clean Air practices to control emissions from all dust-generating source high-efficiency Electrostatic Precipitators (ESP), multiple bag filters, water fogging systems, and mist cannons are installed and operated

	include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional tuck mounted Fog /mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to suspended dust in the atmosphere.	regularly to meet prescribed emission standards. Further, 3-field Electrostatic Precipitators (ESP) has been provided for Captive Power Plant discharging flue gas through the installed stack. Fugitive emissions from raw material handling, dolomite/lime conveying, coal crushers, and screens are controlled through localized bag filters. Dust suppression is further ensured through a network of strategically placed fixed sprinklers, mobile mist cannon units, and fogging systems at crushers, belt conveyors, and furnace areas. These systems collectively minimize ambient dust levels and protect workers' health. Regular inspection, maintenance, and monitoring of implemented measures are carried out, and corrective actions are taken promptly to ensure compliance. **Being Complied**
2.15	Bag filters shall be cleaned regularly and efficiency of bag filter system shall be monitored at regular intervals.	The unit ensures regular and systematic cleaning of bag filters through pulse-jet/mechanized cleaning systems to prevent dust accumulation and maintain optimal filtration efficiency. A preventive maintenance schedule is followed, including periodic inspection of filter bags, cages, hoppers, and ducting for wear, leakage, or damage. The efficiency of the bag filter system is monitored at regular intervals by checking pressure drop across the filters, stack emission levels, and overall system performance. Periodic stack monitoring is carried out through approved methods and NABL-accredited laboratories to ensure compliance with prescribed emission norms. Any deviation observed is immediately addressed by timely repair or replacement of filter bags and corrective operational measures. The performance monitoring report of Bag Filters and ESP is enclosed as **Annexure XVII** and stack emission monitoring report is enclosed as **Annexure XXXIII.** **Being Complied**
2.16	Water Sprinklers /Water mist system shall be installed near raw material yards, operational unit and other strategic locations to control fugitive emissions from the plant.	The unit has implemented comprehensive dust suppression measures across raw material handling areas. Mobile and overhead water sprinklers are provided at raw material feeding and unloading points to control fugitive emissions. A closed dry fog dust suppression system is installed at all conveyor transfer points for effective control of fine particulates. In addition, 15 mobile sprinklers and mist cannon units have been deployed along with overhead sprinklers in raw material unloading areas. Further strengthening these measures, new additional water sprinklers will be integrated into the raw material handling system, including ground hoppers and conveyors. These initiatives ensure effective dust control, improved housekeeping, and minimization of air pollution within the plant premises. The sample photographs of water sprinklers working within the

		premises is enclosed as **Annexure XVIII.** **Complied**
2.17	The particulate matter emissions from the process stacks shall be less than 30 mg /Nm3 and measures shall be undertaken as per the submitted action plan Efficient Air monitoring equipment shall be installed.	The unit ensures that particulate matter emissions from all process stacks are maintained below 30 mg/Nm³ through the installation and proper operation of efficient Air Pollution Control systems as per the approved action plan. Suitable air monitoring equipment is installed, and regular stack monitoring is carried out to verify compliance with the prescribed emission limits. Corrective measures are implemented immediately in case of any deviation. The detailed action plan for the pollution control system to achieve emissions below 30 mg/nm³ is enclosed as **Annexure XIX.** **Being Complied**
2.18	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. b. Proper covered vehicle shall be used while transport of materials. c. Wheel washing mechanism shall be provided in entry and exit gates with complete recirculation system.	• **Closed Dry Fog Dust Suppression System:** A closed dry fog dust suppression system has been installed at all conveyor transfer and material discharge points to effectively control dust generation. The system generates ultra-fine water droplets that agglomerate with dust particles and suppress them at the source without wetting the material or affecting process efficiency. The dry fog system operates within an enclosed arrangement to prevent fugitive dust escape and is interlocked with the conveyor operation to ensure continuous dust control during material transfer. Regular inspection and maintenance of the system are carried out to ensure consistent and efficient performance. • **Transportations of Materials:** All internal roads are of concrete and well maintained. Repairing work required, if any, is carried out immediately. No dust problem arises within the factory premises due to transportation. All transportation vehicles carry/ will carry a valid PUC (Pollution under Control) Certificate. • **Wheel Washing Mechanism:** Wheel washing mechanisms with a complete water recirculation system are provided at both the entry and exit gates to prevent track-out of mud and dust is under process. The system will operate in a closed loop with sedimentation and filtration, ensuring efficient reuse of water and zero discharge. **Being Complied**
3.	**Air Quality Monitoring and Preservation In case of Ferro Alloys Plants**	
3.1	Briquetting and Jigging plant shall be installed in Ferro Alloys Plant.	Briquetting and Jigging plant are not proposed for AFAL. Briquetting and Jigging plant in sister concern company at Hira Ferro Alloys Ltd. Which is 200 meter away from the

		manufacturing unit. **Being complied**
3.2	The PP shall minimize the evaporation losses in jigging operation to less than 10% using suitable advanced process.	Briquetting and Jigging plant are not proposed for AFAL. Briquetting and Jigging plant in sister concern company at Hira Ferro Alloys Ltd. Which is 200 meter away from the manufacturing unit. **Being complied**
3.3	The 4th hole extraction system shall be provided in the Sub Merged Act Furnaces and EAF.	The unit has provided Fourth-hole extraction system in SAF units as part of the standard design to ensure the future adaptability, ensuring efficient removal of high-temperature process gases. The system shall provide to capture high-temperature process fumes from furnaces through a dedicated fourth hole in the furnace roof. The extracted gases shall be conveyed through refractory-lined and water-cooled ducts to high-efficiency air pollution control devices i.e. bag filters, after which the cleaned gases are discharged through an adequately designed stack. **Complied**
3.4	Industry is going to use silica quartz in large quantities and going to produce Silico Manganese and Ferro alloy steel. Therefore, it is necessary to control silica/ quartz exposures at production Departments, not only emission as per Indian Factories Act. The permissible limit for silica /quartz be within 10 mg/m^3 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.	The unit is being carried out periodic personal and area monitoring of silica/quartz dust through NABL-accredited laboratories to ensure that exposure levels remain within the permissible limit of 10 mg/m^3 for total dust as stipulated under the Indian Factories Act. Monitoring records will be maintained systematically, and appropriate corrective measures shall be undertaken wherever required to ensure continued compliance and safeguard occupational health. The monitoring report for silica/quartz sample in total dust ferro production unit is enclosed as **Annexure XX.** **Complied**
3.5	During operational phase at Captive power plant, Action Plan to monitor coke/coal dust exposures in different process plants	The unit has conducted the study to monitor and to assess the coal dust concentration in breathing zone of workers exposed in CHP area with recommendation of control measures for the same. The study concluded that coal dust concentration found to be in TLV norms and also confirmed that DE system is working properly where no dust emission was observed from

	using personnel and area air samplers and to compare with permissible limits as per Indian Factories Act, 1948, shall be implemented.	chimney and nearby areas. The report for the study is enclosed as **Annexure XXI.** **Complied**
3.6	The coal dust should be monitored at coal unloading, crushing, furnace areas and should be within 2 mg/m3, respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.	The coal dust is monitored at multiple coal handling areas including coal yard, conveyers and hoopers. The monitoring report of November 2025 for the coal dust is enclosed as **Annexure XXII.** **Complied**
4.	**Water Quality Monitoring and Preservation**	
4.1	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.	The unit generates industrial wastewater majorly during the below process • Softener Regeneration • Cooling Tower Blow-down • DM Plant Regeneration and Backwash The generated effluent is routed to RCC Tank-I for gravity settling of suspended solids. The overflow is transferred to Tank-II, where chemical dosing for pH control and intermittent aeration for COD and BOD reduction are carried out. The clarified water is entirely reused within the plant for dust suppression, ash conditioning, and greenbelt/plant area sprinkling, thereby eliminating wastewater discharge and conserving fresh water resources. Also, AFAL will install effluent online monitoring system at the premises for continuous online effluent monitoring generated from the process. Further, the environmental monitoring for effluent is conducted and report is enclosed as **Annexure XXXV.** However, flow meters have already been installed to measure and record the quantity of industrial effluent generated and reused. The reuse system is operated and maintained properly to ensure efficient water management and compliance with applicable environmental norms. The photographs installed flowmeter is enclosed as **Annexure XXIII.** **Being Complied**
4.2	The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient number of piezometers/ sampling	The ground water quality report for the project unit is enclosed as **Annexure XXIV.** **Complied**

	wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.	
4.3	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.	Garland drains along with adequately designed catch pits have been constructed within the plant premises to effectively intercept, collect, and channel surface runoff. These systems facilitate the settling and trapping of suspended solids, thereby preventing runoff material from leaving the plant area. Strategically located catch pits ensure effective removal of sediments and contaminants from runoff, ensuring that no contaminated water is discharged outside the premises. This arrangement supports efficient housekeeping practices and provides effective protection of the surrounding environment. **Being Complied**
4.4	Water meters shall be provided at the inlet to all units processes in the steel plants.	There is no steel plant operated within the premises. **Not Applicable**
4.5	The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.	There is no steel plant operated within the premises. **Not Applicable**
4.6	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.	The unit generates industrial wastewater majorly during the below process • Softener Regeneration • Cooling Tower Blow-down • DM Plant Regeneration and Backwash The generated effluent is routed to RCC Tank-I for gravity settling of suspended solids. The overflow is transferred to Tank-II, where chemical dosing for pH control and intermittent aeration for COD and BOD reduction are carried out. The clarified water is entirely reused within the plant for dust suppression, ash conditioning, and greenbelt/plant area sprinkling, thereby eliminating wastewater discharge and conserving fresh water resources. Further, the unit has an operational Sewage Treatment plant with capacity of 100 KL inside the plant premises. The domestic wastewater is being treated through existing STP.

		The plant follows Zero Liquid Discharge process and there is no effluent discharge outside the plant premises. Considering all the above, it is ensured that appropriate measures for sewage water handling have been implemented, and no contamination of any surface or groundwater bodies shall occur. **Complied**
4.7	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 stockyards within the unit are stored on a properly designed concrete platform to prevent soil contamination and material loss. Further, the unit has implemented comprehensive dust suppression measures across raw material handling areas. Mobile and overhead sprinklers are provided at feeding and unloading points, while a closed dry fog system is installed at all conveyor transfer points. Further, mobile sprinklers covering ground hoppers and conveyors ensure effective dust control, improved housekeeping, and minimization of fugitive emissions within the plant premises. Garland drains along with adequately designed catch pits have been constructed within the plant premises to effectively intercept, collect, and channel surface runoff. **Complied**
4.8	Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in EIA/EMP report.	The unit has already constructed 3 Nos. of Rainwater Harvesting pit and 2 Nos. of Soak pit in which Approx. 13438 KL/year water is being recharged into the ground water through injection well through horizontal connected pipe with "V" wire filter Unit. Further, during rainy season, out of total Quantum of available Runoff (Cum/Year), 60 % (20156.4 cum) of water is lost due to evaporation/runoff and soil absorption and minimum of 13437.60 Cum/Year of assumed Quality of water can be recharged into the ground water source. Soak Pit has been constructed at near DM Plant Area having Size is 1.5 m length x 1.2 m Breadth x 1.5 m Height from that Recharge system they have saved approx. 300 cum Rainwater per Annum. The photographs of rainwater harvesting pit within the premises is provided below.

		    The completion certificate for RWH is enclosed as **Annexure XXV.** **Complied**
4.9	Air Cooled condensors shall be used in the captive power plant.	The manufacturing plant was commissioned in the year 2006. Water cooled condenser system has been used in the captive power plant since the commission of plant **Complied**
5.	**Noise Monitoring and Prevention**	
5.1	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.	The noise pollution has been monitored as per Noise Pollution (Regulation and Control) Rules, 2000 and amendments. The noise monitoring reports is enclosed as **Annexure XXVI.** **Being complied**
5.2	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day	The ambient noise levels have been monitored through NABL accredited laboratory in line with the standards prescribed under EPA Rules, 1986. All the ambient noise monitoring results are found within the prescribed limits.

	time and 70 dB(A) during night time.	The noise monitoring report is enclosed as **Annexure XXVI.** **Being complied**
6.	**Energy Conservation Measures**	
6.1	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.	The unit has installed 100 KW ground mounted solar power plant to cater the power requirement of the unit with 8 KW Captive Power Plant. Further, the unit is being introducing other sustainable measures related to energy conservation and carbon neutrality across the project unit area. The visuals of solar power plant installed at the premises is provided below. **Being Complied**
6.2	Provide LED lights in their offices and residential areas.	The unit has provided LED lights across the project premises including office areas and open areas within the facility. The photographs of LED is enclosed as **Annexure XXVII.** **Complied**
7.	**Waste Management**	
7.1	Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil.	Waste Oil generated from the unit is collected through dedicated drain ports and is safely transferred to leak-proof steel drums. The drums are properly labeled and stored in a designated, covered area with an impervious floor to prevent any leakage or spillage. The collected waste oil is subsequently reused or disposed of through authorized recyclers, in compliance with applicable environmental regulations. 2 KL /Annum of Waste/used oil used for heating ladle and machinery lubrication and will be stored in covered HDPE Drums and will be given to approved vendors/authorized recyclers and also waste oil is reused in co-processing. The photograph for waste oil storage at the premises is provided below.

		  Complied
7.2	Kitchen waste shall be composted or converted to biogas for further use.	Biodegradable waste generated within the unit, including kitchen and other organic waste, is segregated at source and collected separately. The collected biodegradable waste is scientifically managed through vermi-composting, resulting in the generation of nutrient-rich compost, which is reused for greenbelt development and landscaping within the premises. All activities related to the collection, handling, and disposal of biodegradable waste are carried out in compliance with the Solid Waste Management Rules, 2016, ensuring environmentally sound waste management practices. **Complied**
7.3	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.	Fly ash generated is stored in dedicated fly ash silos, from where it is either directly dispatched to brick manufacturing units through trucks under a dry handling system, or, where required, conditioned with controlled water spray prior to loading into covered trucks to prevent fugitive dust emissions during transportation. The fly ash conveying system is fully enclosed, ensuring minimal dust generation and negligible human exposure. The monitoring report of power plant silo areas is enclosed as **Annexure XXXVII.** Entire quantity of fly ash produced is systematically collected, stored in a controlled manner, and sold to the brick manufacturers and suppliers for use as a raw material in brick manufacturing. This practice eliminates on-site disposal, prevents environmental pollution, and fully complies with applicable fly ash utilization norms and regulatory guidelines. The unit has an agreement with a brick manufacturing unit for disposal of Ash. A Copy of the same is enclosed as **Annexure XXVIII.** Also, Company has being carried out Ash disposal Audit by NIT (Institute of Repute). The audit report is duly submitted every year to CPCB and CECB. The copy of audit report is enclosed as **Annexure XXIX.**

		Being complied
7.4	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 CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-3/. 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 project proponents.	The unit is a ferrous alloy production facility, and no plastic is used in any of the production processes. Nevertheless, the unit is regularly undertaking measures to sensitize and create awareness among personnel working within the project area, as well as in the surrounding areas, regarding the ban on Single-Use Plastic, in line with applicable regulatory requirements. **Being Complied**
7.5	A proper action plan must be implemented to dispose of the electronic waste generated in the industry.	The electronic waste generated from the unit operation is disposed off to authorized vendor. The latest disposal was made through M/s Laxmi Metals dated 01.01.2026. The disposal documents is enclosed as **Annexure XXX.** **Complied**
8.	**Green Belt**	
8.1	The project proponent shall prepare GHG	GHG emissions inventory has been provided in Life Cycle Assessment Report of the unit. The unit has implemented all the associated measures as recommended in Life Cycle

	emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.	Assessment Report. Further, the Project Proponent has implemented mitigation measures for the reduction of greenhouse gas (GHG) emissions through the plantation of 7647 trees within the plant premises and along the project boundary. This plantation initiative contributes to carbon sequestration by absorbing atmospheric CO_2, thereby helping to mitigate GHG emissions and support the project's carbon neutrality objectives. The detailed list of tree species planted inside and outside the plant boundary, along with their quantity for carbon sequestration assessment, is provided in LCA report enclosed as an **Annexure IV.** **Complied**
8.2	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 monitorable with defined time frames.	The unit has carried out a Life Cycle Assessment (LCA) study to assess carbon emissions across the entire life cycle of operations, including raw material sourcing, manufacturing, energy use, transportation, and waste management. The LCA outcomes form the basis for carbon footprint estimation, carbon budgeting and balancing. Based on the study, a decarbonisation program has been prepared incorporating energy efficiency measures, supply chain emission reduction, transition towards renewable energy, and carbon sequestration through greenbelt development. The potential for carbon capture, utilization and storage and offsetting strategies shall be explored in a phased manner. A measurable and monitorable time-bound action plan has been formulated to progressively reduce carbon intensity of operations and associated supply chains, ensuring continual improvement and alignment with sustainability goals. The copy of LCA is enclosed as **Annexure IV.** **Being Complied.**
8.3	Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.	The project has developed 40 % greenbelt w.r.t to total project area. The greening and paving have been implemented in the plant area. There are 1517 nos. of plantation done within the project premises which covers an area of 7683.81 sq.m. i.e. 10.5% of the total plot area. The concrete roads have been provided within the plant premises for vehicular movement to arrest soil erosion and dust pollution from exposed soil surface. The photographs of concrete road are provided below.

		  Complied
9.	**Public Hearing and Human Health Issues**	
9.1	Emergency Preparedness Plan based on Hazard Identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	The Emergency Preparedness Plan has been prepared and is being implement ed based on the Hazard Identification and Risk Assessment (HIRA) and Disaster Management Plan as detailed in the attached document. The key points of the plan as follows: • **Hazard Identification & Risk Assessment** A comprehensive HIRA has been carried out covering material, process, mechanical and electrical hazards associated with ferro-alloy plant operations. Potential emergency scenarios such as fire, explosion, toxic gas release, molten metal spillage and natural calamities have been systematically identified and evaluated • **Emergency Categorization & Scenarios** Emergencies have been classified into Categories I to V (minor to major, including off-site impacts), and likely emergency situations have been identified for critical areas such as furnaces, transformers and boilers. • **On-Site Emergency Management System** An On-Site Emergency Plan (OSEP) has been established with a defined emergency organization structure (Site Controller, Incident Controller, Emergency Response Team, Safety Head and Security). Roles, responsibilities and communication protocols are clearly defined for day and night operations. • **Emergency Control & Mitigation Measures Detailed emergency handling procedures are in place for:** ➢ Fire (general, electrical, flammable liquid, gas and hydrogen fires) ➢ Explosion/blast scenarios ➢ Toxic gas release ➢ Molten metal spillage ➢ Natural calamities (flood, earthquake, lightning) These procedures include immediate response actions, evacuation, isolation of energy sources, firefighting, medical aid and post-emergency restoration activities

		• **Emergency Infrastructure & Facilities** ➢ Emergency Control Centre (ECC) established at a safe location with communication systems, layout plans and emergency resources. ➢ Adequate firefighting facilities including hydrants, water storage, fire tenders, foam systems and portable extinguishers. ➢ Availability of PPE, SCBA, emergency respirators and first-aid facilities. ➢ Clearly marked escape routes and assembly points considering wind direction • **Training, Mock Drills & Preparedness** Regular training is provided to employees and emergency responders. Mock drills for different emergency scenarios are conducted periodically, records are maintained, and corrective actions are implemented to improve preparedness • **Medical & Mutual Aid Arrangements** First-aid facilities, trained first aiders, emergency vehicle availability and tie-ups with nearby hospitals and fire brigades have been established. Mutual aid arrangements with neighboring industries and coordination with district authorities are also in place • **Off-Site Emergency Coordination** Necessary information has been shared with the District Administration for integration with the Off-Site Emergency Plan, and coordination mechanisms with statutory authorities are defined. The Emergency Preparedness Plan has been formulated and is being implemented in line with the approved HIRA and Disaster Management Plan. The system ensures preparedness, effective response, mitigation of impacts on personnel, property and environment, and compliance with statutory requirements. The ron site emergency plan along with onsite emergency communication chart is enclosed as **Annexure XXXI.** **Complied**
9.2	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protective Equipment (PPE) as per the norms.	The unit has conducted comprehensive industrial hygiene survey to monitor and to assess the respirable dust concentration, noise level, Heat stress, Gas Chemicals, Illumination in the working environment and to further identify the potential hazard and risk arising from work place. The study has suggested the recommended measures to make the environment congenial, conducive and comfortable for the employees. The copy of the report is enclosed as **Annexure XXI.** Also, the monitoring report for work zone is enclosed as **Annexure XXXII.**

		Complied
9.3	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilties such as fuel for cooking, mobile toilets, mobile STP. Safe drinking water, medical health acre, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	No new construction has been carried out at the facility. **Not Applicable**
9.4	Occupational health surveillance of the workers shall be done on a regular basis and records maintained.	The occupational health surveillance of the workers is being done on regular basis. The sample heath records are enclosed as **Annexure XXXVIII.** **Complied**
10.	**Environment Management**	
10.1	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.	AFAL is committed to implement facilities for improvement of infrastructural facilities for the local people in the field of Environmental and Medical. Moreover, CSR Activities is common for our group of companies under HIRA CSR Foundation. AFAL has implemented the following activities as part of their CER initiatives for the community development. • Green belt development and boundary wall white washing & painting work at Nearest villages. • Greenbelt development at Birgoav Muktidham beautification under CSR • Greenbelt development at Urkura site on alloted govt. Land (4 Acre). • Achholi Sheetla Talab_Pacharikaran and Gaharikaran • Shulabh Shouchalay by HIRA group • Aakanksha lions school for mentally handicapped under HIRA CSR foundation. • Cancer screening van BALCO hospital _under HIRA CSR foundation • English education project for primary and middle school-step up for India under HIRA CSR foundation • F-95 advance physiotherapy & research centre (a unit of HIRA CSR foundation) • Old age home gomchi (Maa Godawari Anand Vridhashram) under HIRA CSR foundation The details and photographs along with details of expense made is provided in **Annexure II.** **Complied**

10.2	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 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 / stakeholders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six monthly report.	The environmental policy of HFAL is enclosed as **Annexure XXXIX.** **Complied**
10.3	A separate Environmental Cell both at the project and company headquarter level, with qualified personnel shall be setup under the control of senior executive, who will directly to the head of the organization.	AFAL has created a team consisting of officers to co-ordinate the activities concerned with management and implementation of environmental control measures. An Environmental Management Cell is responsible and established for implementing the Environmental Management Plan and conducting periodic environmental monitoring of important and crucial environmental parameters to assess the status of environment regularly during industrial operations. The Environmental Management Cell also collects data about health of workers, green belt development etc., EMC is headed by Director of the company which reports to the Board of Directors. The hierarchy along with responsibilities of Environmental Management Cell is provided in **Annexure XXXX**. **Complied**
10.4	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.	The performance test report for Bag Filters and Electrostatic Precipitators is enclosed as **Annexure XVII.** **Complied**

11. Miscellaneous		
11.1	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 in within seven days and in addition this shall also be displayed in the project proponent's website permanently.	The project proponent has provided the advertisement in two local newspapers namely Central Chronicle and Deshbandhu (Vernacular Language). The newspaper clip and evidence for display of EC on HFAL website is enclosed as **Annexure XXXXI.** **Complied**
11.2	The copies of the environmental clearance shall be submitted by the 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 form the of recipt.	The copies of the environmental clearance have been submitted to Nagar Nigam. The receiving for the submission is enclosed as **Annexure XXXXII**. **Complied**
11.3	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.	The project proponent is submitting six monthly reports on the status of the compliance of the stipulated environmental conditions. **Being Complied**
11.4	The project proponent shall monitor the criteria pollutants level namely; PM10, S02, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project and display the same at a convenient	The project proponent has monitored ambient air and stack emissions from the project operation through Continuous Ambient Air Quality Monitoring Station (CAAQMS). The levels have been displayed at the unit premises. The photograph of the station is provided as **Annexure X.** The monitoring reports of stack emission is enclosed as **Annexure XXXIII.** **Complied**

	location for disclosure to the public and put on the website of the company.	
11.5	Action plan for developing connecting and internal road in terms of MSA per IRC guidelines shall be implemented	Concrete roads are provided within the manufacturing unit. The photograph of internal concrete road is provided below **Complied**
11.6	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.	The project proponent is submitting six monthly reports on the status of the compliance of the stipulated environmental conditions. **Being Complied**
11.7	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.	Noted and agreed
11.8	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.	Presently, no additional plant or production machinery has been installed. Only modifications/upgradation of pollution control systems have been carried out to improve environmental performance and ensure regulatory compliance. The unit will inform regional office as well as Ministry for the required aspects once the amendment based on issued EC will be completed and production will be started. **Being Complied**
11.9	The project proponent	Noted and agreed

	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.	
11.10	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 Stats Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.	The implementation of the recommendations made in the approved site-specific Wildlife Management Plan is under progress and shall be implemented in due course. The implementation report will be shared to regional office, MoEF&CC after completion. **Compliance under process**
11.11	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.	HFAL is in the process of compiling and uploading details of all environment-related expenditures, expenditures related to the Action Plan on Public Health (PH) issues, and other commitments made in the EIA/EMP Report on the company website for public information. Information regarding unutilized funds allocated for EMP and PH, as committed in earlier ECs, along with the plan for utilization over the next three years, is also under progress and shall be disclosed on the company website upon completion. **Compliance under process**
11.12	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of	Noted and agreed

	Environment, Forests and Climate Change (MoEF&CC).	
11.13	Concealing factual date or submission of False /fabricated date may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act,1986.	Noted and agreed
11.14	The Ministry may revoke or suspend the clrarance, if implementation of any of the above conditions is satisfactory.	Noted and agreed
11.15	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Noted and agreed
11.16	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the office (s) of the Regional Office by furnishing the requisite date /information/ monitoring reports.	Noted and agreed
11.17	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 National Green Tribunal Act,2010.	Noted and agreed

Annexure I: Environment Management Plan Expense

ALOK FERRO ALLOYS LIMITED

PLOT 490/1, 491/2, URLA INDUSTRIAL AREA URLA RAIPUR CHHATTISGARH

INVESTMENT INCREASE PLANT MACHINERY DURING THE PERIOD 2020-21 TO 2024-25

Asset Class	Tag Description	In Service Date	Acquisition Value	Sub Total
RAW MATERIAL HANDLING SYSTEM UPGREDATION				
PLANT & MACHINERY	R/M HANDLING SYSTEM UPGREATION	31-01-2022	1877901.37	
PLANT & MACHINERY	R/M HANDLING SYSTEM UPGREATION	31-01-2022	2074195.65	
PLANT & MACHINERY	R/M HANDLING SYSTEM UPGREATION	31-07-2022	1019479.91	**4971576.93**
FINISHED GOODS HANDLING SYSTEM UPGREDATION				
PLANT & MACHINERY	CRANE EXPAINSION	28-02-2025	828129	
PLANT & MACHINERY	CRANE EXPAINSION	28-02-2025	1889203	
PLANT & MACHINERY	EOT CRANE	28-02-2025	912252.12	
PLANT & MACHINERY	EOT CRANE	31-03-2025	4794000	
PLANT & MACHINERY	FG HANDLING SYSTEM UPGRADATIOI	25-01-2024	25111970.11	**33535554.23**
COOLING SYSTEM UPGREDATION				
PLANT & MACHINERY	COOLING TOWER	04-03-2023	667500	
PLANT & MACHINERY	MS TANK 22500	28-02-2025	313150	
PLANT & MACHINERY	SHELL COOLING SYSTEM	28-02-2025	418120.08	
PLANT & MACHINERY	SHELL COOLING SYSTEM	28-02-2025	1100000	
PLANT & MACHINERY	SHELL COOLING SYSTEM	31-03-2025	151946.42	**2650716.5**
PLANT UPGREDATION				
PLANT & MACHINERY	COPPER PAD	04-03-2023	2825213.73	
PLANT & MACHINERY	Plant & Machinery	04-03-2023	65692255.83	
PLANT & MACHINERY	FURNACE UPGRADETION	31-03-2023	15608474.26	
PLANT & MACHINERY	***POLLUTION EQUIPMENT SYSTEM***	***20-12-2024***	***1120000***	***23344450.9***
PLANT & MACHINERY	***POLLUTION EQUIPMENT SYSTEM***	***31-03-2025***	***22224450.9***	
PLANT & MACHINERY	COPPER BUS BAR	01-02-2025	5360882	**112831276.7**
PLANT & MACHINERY	C I PAN	20-12-2024	3270868	3270868
PLANT & MACHINERY	ELECTRONIC WEIGHING	28-02-2025	53120	53120
PLANT & MACHINERY	HYDROULIC SYSTEM METAL LAODING	31-03-2025	339900	339900
			157653012.4	**180997463.3**

Opening Balance		
Plant & Machinery		144920708.5
Weighbridge System		758000
		145678708.5
Sale & Disposal (-)	33916585	33916585
Net		111762123.5
Investment 01.04.321 to 31.03.2025		157653012.4
		269415135.9
Less Weighbridge System		758000
		268657135.9

POLLUTION EQUIPMENT SYSTEM

2020-21		0
2021-22		0
2022-23		0
2023-24		1120000
2024-25		22224450.9
Expenses on Pollution Control System		**23344450.9**

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

Annexure II: CER Details and Expense

Annexure - 27
EC compliance

HIRA
ALOK FERRO ALLOYS

GREENBELT DEVELOPMENT

&

CSR ACTIVITIES

BREIF: M/s ALOK FERRO ALLOYS LIMITED is a company of Hira group. The Company is Operating Ferro Alloys production Unit having Capacity of 14496 with 8 MW coal Based Power Plant. All the CSR Activities has being carried out under HIRA CSR FOUNDATION. The Company has contribute an amount of Rs. 39,05,000 /- to HIRA CSR FOUNDATION IN LAST AGO YEARS.

LIST OF ACTIVITIES UNDER CSR AND GREENBELT DEVELOPMENT

- Green Belt Development And Boundarywall_White Washing & Painting Work At Achholi Muktidham
- Greenbelt Development At Urla Muktidham Sitting Arrangement Under CSR
- Greenbelt Development And White Washing & Painting Work At Rawabhata Muktidham
- Greenbelt Development At Urkura Site On Alloted Govt. Land.
- Greenbelt Development At Birgaov Muktidham
- Achholi Sheetla Talab_Pacharikaran And Gaharikaran
- Shulabh Shouchalay By Hira Group
- Aakanksha Lions School For Mentally Handicapped_Under HIRA CSR FOUNDATION
- Cancer Screening Van Balco Hospital _Under HIRA CSR FOUNDATION
- English Education Project For Primary And Middle School-Step Up For India
- _Under Hira Csr Foundation
- F-95 Advance Physiotherapy & Research Centre (A Unit Of HIRA CSR FOUNDATION)
- Old Age Home Gomchi (Maa Godawari Anand Vridhashram)_Under HIRA CSR FOUNDATION

GREEN BELT DEVELOPMENT AT ACHHOLI MUKTIDHAM

GREEN BELT DEVELOPMENT AT ACHHOLI MUKTIDHAM

BOUNDARYWALL_WHITE WASHING & PAINTING WORK AT ACHHOLI MUKTIDHAM

GREENBELT DEVELOPMENT AT URLA MUKTIDHAM

GREENBELT DEVELOPMENT AT URLA MUKTIDHAM

SITTING ARRANGEMENT AT URLA MUKTIDHAM UNDER CSR

GREENBELT DEVELOPMENT AT RAWABHATA MUKTIDHAM

GREENBELT DEVELOPMENT AT RAWABHATA MUKTIDHAM

CSR ACTIVITIES _WHITE WASHING & PAINTING WORK AT RAWABHATA MUKTIDHAM

CSR ACTIVITIES WHITE WASHING & PAINTING WORK AT RAWABHATA MUKTIDHAM

GREENBELT DEVELOPMENT AT URKURA SITE ON ALLOTED GOVT. LAND

GREENBELT DEVELOPMENT AT URKURA SITE ON ALLOTED GOVT. LAND

GREENBELT DEVELOPMENT AT BIRGAOV MUKTIDHAM

ACHHOLI SHEETLA TALAB_PACHARIKARAN AND GAHARIKARAN

SHULABH SHOUCHALAY BY HIRA GROUP

AT BAJAR CHOWK ACCHOLI	AT NEAR SHEETLA TALAB

AT NEAR BIRGAOV CANAL

Aakanksha Lions School for Mentally Handicapped_Under HIRA CSR FOUNDATION

Cancer Screening Van Balco Hospital _UNDER HIRA CSR FOUNDATION

Cancer Screening Van Balco Hospital _UNDER HIRA CSR FOUNDATION

Old Age Home Gomchi (Maa Godawari Anand Vridhashram)_UNDER HIRA CSR FOUNDATION

English Education Project for Primary and Middle School-Step Up For India
_UNDER HIRA CSR FOUNDATION

F-95 Advance Physiotherapy & Research Centre (A Unit of HIRA CSR Foundation)

HIRA

HIRA CSR FOUNDATION

Ref: HCSRF/2024-25/2917 Date:06.09.2024

TO WHOM SO EVER IT MAY CONCERN

We would like to confirm the receipt of an amount of Rs.13,05,000 (Rupees Thirteen Lakh Five Thousand) in the month of March, 2022 from M/s. Alok Ferro Alloys Limited, Urla Industrial Area, Raipur through cheque No. 947437 dated 15.03.2022.

This donation amount has been utilized for undertaking various CSR activities by the Company.

For Hira CSR Foundation

Director

HIRA CSR FOUNDATION
CIN : U85300CT2021NPL011368
Registered Office : F-18, Hira Arcade, Near New Bus Stand, Pandri, Raipur - 492004, Chhattisgarh, India
Ph.: 0771-4082000, Fax : 0771-4057601 Email : co.secretary@hiragroup.com

HIRA

HIRA CSR FOUNDATION

Ref: HCSRF/2024-25/2918 Date:06.09.2024

TO WHOM SO EVER IT MAY CONCERN

We would like to confirm the receipt of an amount of Rs.26,00,000 (Rupees Twenty-Six Lakh) in the month of March, 2023 from M/s. Alok Ferro Alloys Limited, Urla Industrial Area, Raipur through cheque No. 947691 dated 29.03.2023.

This donation amount has been utilized for undertaking various CSR activities by the Company.

For Hira CSR Foundation

Director

HIRA CSR FOUNDATION
CIN : U85300CT2021NPL011368
Registered Office : F-18, Hira Arcade, Near New Bus Stand, Pandri, Raipur - 492004, Chhattisgarh, India
Ph.: 0771-4082000, Fax : 0771-4057601 Email : co.secretary@hiragroup.com

EXPENSES TOWARDS CORPORATE ENV. RESPONSIBILITY

Annexure - 27
EC compliance

ALOK FERRO ALLOYS LIMITED(FERRO DIVISION).
PLOT NO 458/1, 459, Urla Industrial Complex Urla, RAIPUR CHHATTISGARH INDIA
Phone : 0771-4082850 / 60 Telefax : 0771-4082880 Email : admin@afal.co.in

Finance Book : ALOK FERRO HO
Account Ledger for Account Name : PLANTATION CHARGES PROVISION

From: 01/04/2025 To: 31/03/2026

	Voucher Date	Particular	Voucher No.	Voucher Type	Debit Amount	Credit Amount
1	04/04/2025	PLANTATION CHARGES	FERRO\25-26\JV\00165	Journal		65300.63
2	07/04/2025	PLANTATION CHARGES	FERRO\25-26\JV\00166	Journal		42620.00
3	14/04/2025	NATURE TOUCH LANDSCAPE PVT LTD	FERRO\25-26\JV\00356	Journal	65300.63	
4	18/04/2025	SILIP KUMAR UIKE	FERRO\25-26\JV\00357	Journal	42620.00	
5	03/05/2025	PLANTATION CHARGES	FERRO\25-26\JV\00713	Journal		42620.00
6	07/05/2025	PLANTATION CHARGES	FERRO\25-26\JV\00843	Journal		65300.00
7	10/05/2025	SILIP KUMAR UIKE	FERRO\25-26\JV\01015	Journal	42620.00	
8	13/05/2025	NATURE TOUCH LANDSCAPE PVT LTD	FERRO\25-26\JV\01016	Journal	65300.00	
9	06/06/2025	PLANTATION CHARGES	FERRO\25-26\JV\01607	Journal		65300.00
10	06/06/2025	PLANTATION CHARGES	FERRO\25-26\JV\01608	Journal		42620.00
11	09/06/2025	SILIP KUMAR UIKE	FERRO\25-26\JV\02065	Journal	42620.00	
12	12/06/2025	NATURE TOUCH LANDSCAPE PVT LTD	FERRO\25-26\JV\02062	Journal	65300.00	
13	30/06/2025	PLANTATION CHARGES	FERRO\25-26\JV\02701	Journal		42620.00
14	07/07/2025	PLANTATION CHARGES	FERRO\25-26\JV\02703	Journal		65300.00
15	11/07/2025	NATURE TOUCH LANDSCAPE PVT LTD	FERRO\25-26\JV\03189	Journal	65300.00	
16	14/07/2025	SILIP KUMAR UIKE	FERRO\25-26\JV\03185	Journal	42620.00	
17	04/08/2025	PLANTATION CHARGES	FERRO\25-26\JV\03902	Journal		44000.00
18	05/08/2025	PLANTATION CHARGES	FERRO\25-26\JV\03901	Journal		65300.00
19	06/08/2025	SILIP KUMAR UIKE	FERRO\25-26\JV\03996	Journal	44000.00	
20	07/08/2025	NATURE TOUCH LANDSCAPE PVT LTD	FERRO\25-26\JV\03997	Journal	65300.00	
21	30/08/2025	PLANTATION CHARGES	FERRO\25-26\JV\04919	Journal		44000.00
22	30/08/2025	SILIP KUMAR UIKE	FERRO\25-26\JV\04921	Journal	44000.00	
23	12/09/2025	PLANTATION CHARGES	FERRO\25-26\JV\05413	Journal		65300.00
24	16/09/2025	NATURE TOUCH LANDSCAPE PVT LTD	FERRO\25-26\JV\05424	Journal	65300.00	
25	30/09/2025	PLANTATION CHARGES	FERRO\25-26\JV\06044	Journal		25000.00
26	30/09/2025	SILIP KUMAR UIKE	FERRO\25-26\JV\06052	Journal	25000.00	
27	04/10/2025	PLANTATION CHARGES	FERRO\25-26\JV\06049	Journal		44000.00
28	06/10/2025	SILIP KUMAR UIKE	FERRO\25-26\JV\06117	Journal	44000.00	
29	06/10/2025	PLANTATION CHARGES	FERRO\25-26\JV\06413	Journal		65300.00
30	11/10/2025	NATURE TOUCH LANDSCAPE PVT LTD	FERRO\25-26\JV\06439	Journal	65300.00	
31	01/11/2025	PLANTATION CHARGES	FERRO\25-26\JV\07091	Journal		44000.00
32	04/11/2025	SILIP KUMAR UIKE	FERRO\25-26\JV\07101	Journal	44000.00	
33	07/11/2025	PLANTATION CHARGES	FERRO\25-26\JV\07284	Journal		65300.00
34	11/11/2025	NATURE TOUCH LANDSCAPE PVT LTD	FERRO\25-26\JV\07292	Journal	65300.00	
35	05/12/2025	PLANTATION CHARGES	FERRO\25-26\JV\08112	Journal		44000.00
36	09/12/2025	SILIP KUMAR UIKE	FERRO\25-26\JV\08314	Journal	44000.00	
37	19/12/2025	PLANTATION CHARGES	FERRO\25-26\JV\08832	Journal		65300.00
38	24/12/2025	NATURE TOUCH LANDSCAPE PVT LTD	FERRO\25-26\JV\08878	Journal	65300.00	
39	31/12/2025	PLANTATION CHARGES	FERRO\25-26\JV\09110	Journal		44000.00
40	31/12/2025	SILIP KUMAR UIKE	FERRO\25-26\JV\09223	Journal	44000.00	
						0.00
					1047180.63	**1047180.63**
						0.00

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

Annexure III: Water Permission/Agreement and Water Balance

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:	Alok Ferro Alloys Limited (ferro Division)		
Project Address:	Plot No. 458/1, 459, Urla Industrial Area, Urla Raipur Chhattisgarh., Urla Industrial Area, Urla Raipur (c.g.)		
Town:	Birgaon (m)	Block:	Dharsiwa
District:	Raipur	State:	Chhattisgarh
Pin Code:			
Communication Address:	Plot No. 458/1, 459, Urla Industrial Area, Urla Raipur Chhattisgarh., Urla Industrial Area, Urla Raipur (c.g.), 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.	**NOC No.:**	CGWA/NOC/IND/ORIG/2024/20228	2.	**Date of Issuence**	4/29/2024 5:04:35 PM
3.	Application No.:	21-4/10271/CT/IND/2024	4.	Category: (GWRE 2023)	Critical
5.	Project Status:	Existing Project	6.	NOC Type:	New
7.	**Valid from:**	20/04/2024	8.	**Valid up to:**	18/03/2027

9. Ground Water Abstraction Permitted:

Fresh Water		Saline Water		Dewatering		Total	
m³/day	m³/year	m³/day	m³/year	m³/day	m³/year	m³/day	m³/year
75.00	27375.00						

10. Details of ground water abstraction /Dewatering structures

	Total Existing No.:0						**Total Proposed No.:2**					
	DW	DCB	BW	TW	MP	MPu	DW	DCB	BW	TW	MP	MPu
Abstraction Structure*	0	0	0	0	0	0	0	0	2	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.):	109500.00
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

(Compliance Conditions given overleaf)

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

CENTRAL GROUND WATER AUTHORITY

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

Mandatory conditions:

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

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

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

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

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

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

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

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

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

10) This NOC is subject to prevailing Central/State Government rules/laws/norms or Court orders related to construction of tube well/ground water abstraction structure / recharge or conservation structure/discharge of 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 m3/day, the firm/entity shall ensure implementation of dual water supply system in the projects.

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

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

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.)

CENTRAL GROUND WATER AUTHORITY

CENTRAL GROUND WATER AUTHORITY

Department of Water Resources, River Development and Ganga Rejuvenation
Ministry of Jal Shakti, Govt. of India

Receipt

(As per the MoJS guidelines dated 24.09.2020 vide SO No. 3289(E) and amendments dated 29.09.2023 vide SO No. 1509(E))
https://cgwa-noc.gov.in

Application No,:	21-4/10271/CT/IND/2024	Date of Issuence:4/29/2024 5:04:35 PM
Name of Firm:	ALOK FERRO ALLOYS LIMITED (FERRO DIVISION)	
AppType Category:	*Ferrous Metallurgical Steel*	
Application Type:	*Industrial*	
PAN/GSTIN No. of Firm/Individual:	*AACCA0569P /*	

SN	Description	Amount (Rs.)
1.	Application Processing Fee	**10000.00**
2.	Ground Water Abstraction charges	
3.	Ground Water Restoration charges	
4.	Environmental Compensation Charges (ECRGW) *(Date From to) Days-*	
5.	Penalty for non-Compliance of NOC conditions *Condition to be mentioned*	
6.	Adjustment Charges	
7.	Rebate	
8.	Charges for correction/modification in the existing issued No Objection Certificate	

S.No.	Description	Rate
(i)	Change in User ID	Rs. 1000
(ii)	Change in firm Name	Rs. 5000
(iii)	Extension of No Objection Certificate	Rs. 5000
(iv)	Issuance of duplicate No Objection Certificate	Rs. 5000
(v)	Issuance of corrigendum to No Objection Certificate	Rs. 5000
(vi)	Any other items/correction etc.	Rs. 500

Rs. Rupees One Lakh Ninteen Thousand Five Hundred Only	**119500.00**

This is an system generated invoice, hence, does not require ink signed.

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

पानी बचाये – जीवन बचाये
SAVE WATER - SAVE LIFE

Term and conditions:

i. All disputes are subject to Delhi Jurisdiction.
ii. Any complaint in regard to the rates will not be entertained.

Member-Secretary
CGWA, New Delhi

CENTRAL GROUND WATER AUTHORITY

छत्तीसगढ़ CHHATTISGARH

T 684988

NO 629 /SBM/ RMC/ 2024-25

Date - 15.01.20

AGREEMENT

BETWEEN

RAIPUR MUNCIPAL CORPORATION (RMC)

AND

M/S ALOK FERRO ALLOYS LIMITED (AFAL)

This Agreement is entered upon by and between the parties below on this .....15th..... Day of ...January... 2025,

By and Between

Raipur Municipal Corporation, the governing body of the city of Raipur in the state of Chhattisgarh, having its registered office at White House, Raipur, Chhattisgarh PIN 492001 (hereinafter referred to as the **"RMC")**, which expression shall, unless the context otherwise requires, include its successors in interest, permitted assigns and substitutes of the **FIRST PART**;

AND

M/s Alok Ferro Alloys Limited, a company incorporated under provisions of the Companies Act, 1956, having its registered office at Plot

Alok Ferro Alloys Limited

Director/ Authorised Signatory

Additional Commissioner
Muncipal Corporation Raipur (C.G.)

4088 08/01/2025 100/-

श्री/श्रीमती/कु. .....

विक्रेता आलोक फेरो एलाईस लि.

पिता/पति/विधा उरला रायपुर (छ०ग०)

निवासी .....

मार्फत पवन द्विवेदी

क्रेता रायपुर म्युनिसिपल कार्पोरेशन

पिता/पति/विधा .....

निवासी रायपुर (छ०ग०)

बाबते .....

ई.प्रि.मिन्ट

मनोज तिवारी, स्टाम्प विक्रेता, सिविल कोर्ट, रायपुर (छ.ग.) मोबा.-07547505389, 7987947007

Dwivedi

08/01/2025

DISTRICT COLLECTORATE OFFICE
16 NOV 2021
RAIPUR (CHHATTISGARH)

No. 458/1 & 459, Urla Industrial Complex, Urla, Raipur, C.G. (hereinafter referred to as the **"Purchaser"**), which expression shall, unless the context otherwise requires, include its successors in interest, permitted assigns and substitutes of the **SECOND PART**;

"RMC" and **"PURCHASER"** are collectively referred to as **"Parties"** and individually as **"Party".**

Whereas, the Purchaser sought permission for drawl of water from RMC and after obtaining the above both parties entered upon an MOU dated 19.06.2024 after which the Purchaser has made necessary arrangement for drawl of water and is now entering upon this agreement for use of treated sewage water by PURCHASER from 90 MLD Sewage Treatment Plant of RMC at Nimora, Raipur C.G.

A. Raipur Municipal Corporation (RMC) desires to deliver treated sewage water to PURCHASER for its **M/s Alok Ferro Alloys Limited situated at** Plot No. 458/1 & 459, Urla Industrial Complex, Urla, Raipur, C.G. 492003 for Non-potable application after treatment of raw municipal sewage through sewage treatment plant. The secondary treated sewage water shall meet the NGT norms.

B. PURCHASER desires to accept treated sewage water for its Industry for Non-potable application by construction of pumping system, Tertiary Treatment Plant (as applicable to their requirement) and pipe conveying system up to the doorstep of the PURCHASER, to be executed by the PURCHASER at their end.

Whereas, both the parties are entering into this agreement as the construction of TTP, laying of conveyance pipes and commissioning of the work has been completed and the purchaser is now ready for drawl of water.

Whereas the Purchaser is going to withdraw water from the RMC and will distribute the water among its group of companies namely M/s Hira Power & Steel Ltd., M/s RR Ispat (A Unit of M/s Godawari Power & Ispat Ltd.) and M/s Hira Ferro Alloys Ltd as has been agreed between both parties.

Now, in witness whereof and upon mutual considerations both the parties agree upon the following terms and conditions: -

Alok Ferro Alloys Limited

Director/ Authorised Signatory

Additional Commissioner
Municipal Corporation Raipur (C.G.)

1. DEFINITIONS

(a) "Annual Contract Quantity" means annual quantity (in ML) of 1050-- ML per year (3 MLDx350 days= 1050ML/Annum) of Treated Sewage Water, considering water to be supplied for 350 days in a year.

(b) "Daily Amount" means 3 MLD of treated sewage water.

(c) "Emergency" means an unanticipated event, which causes a malfunction of either Party's facilities, preventing either the delivery or the acceptance of water.

(d) "Joint Oversight Committee" (JOC) means that committee comprised of four members, two (02) representatives each from – Raipur Municipal Corporation (RMC)/PURCHASER (as given in Annexure-III) established to share information and coordinate to fulfil each Party's interest as per agreement.

(e) "Meter" means meter that will be established by the ..... for measuring the daily intake of water.

(f) "Point-of-Delivery" means the point at which Raipur Municipal Corporation (RMC) delivers water at the sump with Pumphouse near the STP.

(g) "Project completion" means that point in time when the Project (Pumping System, Pipeline conveying system and Tertiary Treatment System (as applicable)) has been constructed, tested and commissioned successfully in accordance with Project specifications, the facilities are put under full operation, and the Project has been accepted in writing by the JOC.

(h) "Third Party" means any person or entity (governmental, semi government or private) other than Raipur Municipal Corporation (RMC) or PURCHASER.

(i) "Raw Sewage" means sewage water received at inlet of STP for treatment.

(j) "Secondary Treated Sewage" means output from STP, which are input to pumping system or TTP (as applicable) meeting quality requirement as per Annexure-I.

(k) "Sewage Treatment Plant" (STP) means Sewage Treatment facilities constructed by Raipur Municipal Corporation (RMC) at Nimora, Raipur.

(l) "Tertiary Treatment Plant" (TTP) means Tertiary Treatment facility, to treat the secondary treated sewage water, constructed by RMC (Not Applicable).

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(m) "**Treated Sewage water Supply Charges**" means the charges payable (if any) by PURCHASER to RMC towards the Supply of Treated Sewage water of the required quality and quantity

(n) "**RMC**" means Raipur Municipal Corporation.

(o) "**PURCHASER** " means the Industry desiring to purchase the secondary treated sewage water for non potable purpose , Raipur/Durg

(p) "**ML** & **MLD**" means Million Litres & Million Litres per Day.

(q) **"Capex charges (RMC scope)"** shall mean the capital cost of facilities defined under **RMC** scope (price bid of the successful Bidder in Open Tender, mutually agreed upon and subject to approval of respective Managements).

(r) **"Opex charges (PURCHASER Scope)"** shall mean the O&M charges of the facilities defined under PURCHASER scope (price bid of the successful Bidder in Open Tender, mutually agreed upon and subject to approval of respective Managements) payable on per cubic meter basis.

2. QUANTITY

"Demand by PURCHASER Raipur and Supply by RMC"

2.1 STP of 90 MLD has been constructed by RMC at Nimora, Raipur (C.G.) out of which 3 MLD secondary treated sewage water shall be supplied to PURCHASER Raipur (C.G.). PURCHASER agrees to accept 3 MLD treated sewage water from the Existing STP recently constructed by RMC at Nimora, Raipur.

2.2 The transmission piping system shall be designed by the PURCHASER to deliver Treated Sewage Water to the PURCHASER's **Factory Premises**. RMC agrees to supply the treated sewage water at a steady uniform rate (allowable variation of (+/-) 15%) with storage facility at STP premise on daily basis.

2.3. The daily drawl of water by the PURCHASER M/s Alok Ferro Alloys Limited shall be 3 MLD, whereby a meter shall be installed at the point of delivery to measure the actual drawl of water by PURCHASER and to cross check any network losses Purchaser will install one meter at premises delivery end the actual reading of which shall be accounted at the time of billing every month.

2.4 Commencement of this agreement shall start when the Purchaser starts withdrawing water from the STP.

3. "QUALITY"

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3.1 RMC shall be bound to supply secondary treated sewage meeting NGT Norms as per Annexure-I.
Additional parameters like TDS, Chloride and total hardness shall not be ensured as they are not treated in the STP (Annexure-II).

3.2 PURCHASER shall use treated sewage water for non-potable purposes in its Industry/ plant.

3.3 RMC shall supply treated sewage water as per the quality standards mentioned in Annexure-I as per statutory norms.

3.4 In case of disagreement on treated sewage water quality, the same shall be tested in an accredited third-party laboratory mutually agreed and through the joint sampling. The sampling and testing shall be done atleast once a month. The water quality results obtained out of such process shall only be considered for the operation of any quality related clauses in this agreement.

4. "DIVISION OF SCOPE"

4.1 PURCHASER scope shall include TTP (as applicable) and pumping system, to be located at the premises of Purchaser property, supply and laying of conveying pipeline to TPP, to be executed by PURCHASER as per their suitable design and cost.

4.2 RMC shall be responsible to supply secondary treated sewage water at sump within STP premises (the point of delivery).

4.3 RMC shall facilitate filling arrangement at the point of delivery of water for the purpose of filling water tankers of the purchaser company till the pipeline is completely laid from delivery point to company premises. Energy charges of the above shall be paid to RMC by Purchaser when RMC raises demand in writing.

5. "COST & PAYMENT"

5.1 The tariff for secondary treated sewage water shall be levied as per the rate of Rs. 06.00 (Rs Six Only) Per Kilo Liter. The rates shall be binding and can be increased with a maximum rate of 3% every year. The rates shall be inclusive of the taxes and levies on RMC's part however GST if applicable shall be charged extra as per the prevailing rates.

5.2 The Capex & Opex charges for installation and O&M of, pumping & piping system defined under the scope of PURCHASER shall be payable by PURCHASER.

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5.3 PURCHASER shall pay the amount on calendar month basis based on actual drawl of water based on the meter readings further subject to Treated Sewage Water meeting the effluent quality as indicated in Annexure-I.

5.4 The bill shall be raised by 7th of the month for the quantity supplied in the previous calendar month. The same shall be paid within 15 days from the receipt of the bill by hard copy or by e-mail.

5.5 In case of Under drawl, the PURCHASER agrees to pay 10% amount towards minimum demand charges of the total Annual Contract Qualtity demand. The minimum demand would be 10% of the contracted demand.

5.6 In case of over drawl, the PURCHASER shall be restricted to draw not more than 10% additional water of annual contract quantity without incurring additional charges or incremental tariff. For any quantity exceeding the above 110% drawl the PURCHASER will pay to the RMC @ 1.5times the tariff rate for the excess drawl.

5.7 The bill for every month shall be raised on actual drawl of STP water, however, calculation for under drawl and over drawl shall be conducted on annual basis for the entire financial year along with the monthly bill for the month of March, that shall be payable in the April of the Next financial year.

5.8 RMC shall waive off the payment of Minimum Demand Charges till the PURCHASER completes the laying of pipeline from STP to its factory/plant premises.

5.9 If the PURCHASER does not lift the desired water without providing any prior notice of emergency or any notice of non-withdrawal the PURCHASER will be liable to pay the Minimum demand charges of 10% on under drawl water towards the yearly drawl to RMC as explained in clause 5.5 towards minimum demand charges by the PURCHASER in any case.

5.10 However if the PURCHASER does not lift the desired water without providing any prior notice of emergency or any notice of non withdrawal the PURCHASER will be liable to pay the Minimum demand charges of 10% towards the monthly drawl to RMC as explained in clause 5.5 towards minimum demand charges by the PURCHASER in any case.

6. "METER AND METER READING"

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6.1 A meter indicator and other necessary specialized equipments shall be established by the RMC at the point of delivery for measuring of the water intake by the PURCHASER, whereas a check meter shall be established by the PURCHASER .

6.2 The meter shall be read by the competent officials of the RMC once a month prior to raising the bill or as when necessary.

6.3 The meter after reading shall be sealed by the competent officials of RMC, to prevent any dispute in regards to tampering of reading.

6.3 The meter shall be maintained by the PURCHASER and the JOC must ensure the working of the meter and to keep it in good working condition always.

6.4 In case of a dispute with regards to the meter or meter reading, the data from the check meter will be considered for all billing related matters. In case of both meters being out of order the monthly billing shall be based on the average of previous 3 months of water drawl. The JOC may try and settle the matter amicably and in happenstance of non settlement of issue the matter shall be dealt as per the clause 18.

6.5 Leakage in pipe line network shall be within stipulated norms/byelaws

7. "PERIOD OF AGREEMENT"

The minimum period of agreement for supply of Treated Sewage Water shall be for 15 years, from the date of start of operation & commencement of supply of treated sewage water to PURCHASER Raipur from RMC. Renewal of agreement shall be upto the tune of the period of the agreement upon mutually agreed terms.

8. "END USE OF TREATED SEWAGE WATER"

8.1 PURCHASER M/s Alok Ferro Alloys Limited shall have all the rights for end use of Treated Sewage Water of agreed quantity at specified quality for any non-potable application. RMC shall discharge/utilise surplus treated sewage water, if any, meeting quality level as per prevalent norms of concerned statutory authority (ies). RMC shall keep the provision of discharging/utilising treated sewage water due to less/no drawl of Treated Sewage Water by PURCHASER, based on the operational requirement of the PURCHASER.

8.2 PURCHASER shall have the right to refuse drawl of treated sewage water in case RMC fails to deliver water of agreed quality and/or quantity. The purchaser shall have to notify to the RMC by a notice stating

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deviations in quality parameters. Whereby the RMC shall compensate towards minimum demand charges to the PURCHASER for the days wherein the quality of water was not as per contracted parameters.

9. "RIGHTS, PERMISSIONS, STATUTORY OBLIGATIONS"

RMC shall be responsible for all the rights permissions and statutory obligations, the norms of state or central pollution control board or water right issues with water resources department or any other government department related to the treatment and disposal of effluent of the sewage treatment plant.

10. DELIVERY AND ACCEPTANCE OF WATER

10.1 Upon commencement of operations, RMC shall deliver to PURCHASER at the point of delivery, the daily amount of water as agreed in this document except for supply interruption as set forth in clause-14 or excused as provided in Clause-13.

10.2 For the purpose of measuring the Parties' compliance with this section, the day shall be the twenty-four hours period commencing on 12.00 noon on the first day of the month following Commencement of Operations. Quality parameter and quantity delivered shall be measured at the point of delivery and shall be considered for acceptance. JOC will maintain all records related to quality and quantity of treated sewage water supplied to PURCHASER. The instruments for measurements of quantity and quality shall be regularly checked for correct calibration once in every month by JOC or as desired.

11. QUALITY SAMPLING & TESTING OF WATER

11.1 PURCHASER shall have access to RMC facilities and records for the purpose of either testing or verifying the quality of the Treated Sewage Water only after prior permission from RMC.

11.2 The PURCHASER shall take one sample each for 3 shifts in a day to test the quality of water at the purchaser end whereby, in case of any deviation with regards to the quality of water, the PURCHASER and RMC shall jointly test the water to determine the quality of water at the point of delivery. If any dispute as to whether the quality of water is as per the required standards occurs then the sampling and testing of the water will be drawn at the point of delivery and shall be referred to an independent

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NABL accredited LAB. The outcome of the 3rd party lab report is binding to both the parties.

11.3 If the Treated Sewage Water quality do not meet the quality performance set at the point of delivery for whatsoever reason then PURCHASER shall not accept the water to be supplied to its Industry & shall not have any obligation of payment towards any minimum charges in such case.

11.4 The quality parameters declared at the time of signing the MOU, as attached at Annexure-I, shall be considered final and binding throughout the period of agreement.

12. JOINT OVERSIGHT COMMITTEE (JOC)

12.1 The Parties shall establish the JOC. The goal of the JOC shall be to achieve maximum efficiency of the overall work. The representative of RMC and PURCHASER Ltd shall occupy the position of Chairman of JOC by rotation after each period of one calendar year.

12.2 Each Party shall designate its two (2) representatives within 10 days following execution of this Agreement and each Party shall provide notice to the others pursuant to clause 30.

12.3 The JOC shall keep written minutes of its meetings.

12.4 Each Party may, by written or oral notice to the other Party, designate an alternate or substitute to act as its representative in the absence of any of its regular members or to act on specified occasions with respect to specific matters.

12.5 Meeting of JOC shall conduct for a minimum of 4 times a year.

13. DUTIES OF JOINT OVESIGHT COMMITTEE (JOC)

13.1 Each Party shall have two members in JOC. At least one authorized representative each from RMC & PURCHASER shall be present at all meetings.

13.2 The JOC shall share information between the Parties and coordinate the operations of the Parties in order to achieve the objectives of this agreement and resolve disputes between the Parties. However, JOC will not have any right to verify the design and supervise the quality of

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construction works.

13.3 The JOC shall be responsible for the periodic review of the water quality parameters as given in Annexure-I & II. Sampling protocol shall be established by the JOC.

13.4 The JOC shall meet whenever requested by a member of the JOC.

13.5 If the JOC is unable to act on any issue raised by a member of the JOC, the JOC shall refer the issue to mediation.

13.6 The JOC shall be the administering body at the time of emergency therein the JOC shall authorize interruption or delivery of water and shall be responsible for regularly providing updates to both the parties about the nature of emergency, the rectifications repairs required and the party responsible for such rectification and repairs.

14. FORCE MAJEURE

14.2 No Party shall be considered to be in default in the performance of any of its obligations when a failure to perform is due to or materially contributed to by an act of God, war, fire, earthquake, Pandemic, epidemic, windstorm, flood, and other natural catastrophe, civil disturbance or disobedience, strikes, lockouts, work stoppage, vandalism, sabotage, terrorism, which such Party could not reasonably have been expected to avoid and which by exercise of due diligence has been unable to overcome.

14.3 The Party whose performance is affected by force majeure shall, as soon as practicable, but in any event no later than 7 days thereafter, give written notice of the event of force majeure to the other Party.

14.4 The Parties shall use their best efforts and cooperate with each other to mitigate the effects of force majeure resulting to.

15. SUPPLY INTERRUPTIONS

15.1 To allow maintenance or in an Emergency, the JOC may authorize an interruption of delivery and acceptance of water. The Party who is in emergency situation shall inform the other immediately over mail/phone/SMS and tackle the emergency situation expeditiously and shall not wait till formal meeting of JOC. The Parties' respective duty to deliver and accept water under this Agreement is temporarily suspended during a supply/acceptance (use) interruption authorized by the JOC.

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15.2 The Parties shall use their best efforts to minimize the length of supply/acceptance (use) interruption.

15.3 In case of administrative / technical constrains, emergency or forced restrictions, the disbursement of water shall be on first come first serve basis.

16. OBLIGATIONS, RIGHTS AND RELATIONSHIP OF THE PARTIES

A) Obligations of RMC

i. RMC shall be responsible for timely execution of the complete scope of work for supplying the treated sewage water at the point of delivery.

ii. RMC shall not be responsible for arranging all permissions, right of use, right of way etc as required, for executing and laying of treated sewage water supply pipeline up to doorstep of PURCHASER Raipur power plant.

iii. RMC shall be responsible for maintaining the quality and quantity of the Treated Sewagewater at the point of delivery.

iv. Pumping system, (as applicable) shall be in the premises of STP and the TTP if applicable shall be constructed by PURCHASER in their premises.

v. RMC shall be responsible for O&M of the facilities (under RMC scope) and the PURCHASER shall be responsible for O&M of PURCHASER Scope.

B. Rights of RMC

RMC shall have the right to receive the tariff that will be levied by them upon the PURCHASER for drawl of water.

C. Obligations of PURCHASER Ltd

i. PURCHASER shall make payments regularly to RMC on the date and manner agreed in thisAgreement

ii. PURCHASER shall be the lawful owner of the assets (under PURCHASER scope).

iii. PURCHASER shall use the Treated Sewage Water for its industry for non-potable purpose.

iv. PURCHASER shall be lawful owner of assets.

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v. PURCHASER shall use the Treated Sewage Water fir its Industry for Non-potable usage.

D. RIGHTS OF PURCHASER

The PURCHASER shall have the right to receive the secondary treated water for non-potable purposes and in the quality as described by the NGT in ANNEXURE-I whereby in case of default by the RMC the PURCHASER will have the right to compensation.

E. General Obligations

i. Each Party shall use its best efforts and work diligently, in good faith, and in a timely manner to carry out the duties and obligations imposed by this Agreement.

ii. Each Party shall provide to the other Party services to permit efficient and reliable operations under this Agreement as follows:

iii. The obligations, rights and liabilities of the Parties under this Agreement are intended to be several and not joint or collective, and nothing herein is intended to create an association, joint venture, trust, or partnership, or to impose a trust or partnership obligation or liability onor with regard to RMC or PURCHASER Ltd.

iv. Except as expressly provided for in this Agreement or any other agreements, no Party shall be deemed the agent of or have the right or power to bind any other Party.

v. This Agreement shall become effective subject to approval from Commissioner RMC, for which necessary assistance and justification for the queries raised by Purchaser shall be provided by RMC.

vi. Both Parties shall Enter upon an agreement after the completion of the construction and commission of the work.

17. DEFAULT

If either Party to this Agreement defaults in respect to any of its obligations or under any of the clauses of this Agreement, the non-defaulting Party may notify the defaulting Party in writing, setting out in what respects the non-defaulting Party deems the defaulting Party to be in default. If within thirty (30) days or such other period as agreed to by the Parties in writing after receipt of notice, the defaulting Party has corrected the default alleged by the non-defaulting Party, the defaulting Party shall no longer be in default. In the event of failure by the party to mitigate the default(s), the other party may resort to the dispute resolution procedure under clause 18 for resolution of the said dispute(s).

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18. DISPUTE RESOLUTION

18.1 The parties in case of dispute shall sought to amicable settlement to be administered by the JOC. The terms and conditions of this agreement once agreed are non-negotiable whereby if a dispute arises then in such a situation the JOC shall administer the issues involved and resolve the same through amicable methods and mutual consultation of both parties.

18.2 If either party who is not satisfied by the resolve of the JOC, shall sought to arbitration whereby either party may propose a sole arbitrator who shall be or should belong to the judiciary and should hold position not below the level of Additional District Judge, whereby the arbitration shall be governed as per the Arbitration and Conciliation Act 1996.

19. ASSIGNMENTS

19.1 No Party shall assign, either in whole or in part, any of the rights, duties or obligations created or imposed under this Agreement without the prior written consent of the other Party, except to another Party to this Agreement or to a subsidiary, affiliate or any other entity succeeding to all or substantially all of the affected interests and assets of the Party provided that such subsidiary, affiliate or succeeding Party shall assume the assigning Party's obligations hereunder in writing.

19.2 No delegation of any obligation owed, or of the performance of any obligation, by any Party, may be made without the prior written permission of the other Party. Any attempted assignment or delegation shall be wholly void and totally ineffective for all purposes unless made in conformity with this clause-

19.3 Consent may be withheld, refused, or conditioned if the economic viability of the other Party is a concern; provided, however, that consent may not be unreasonably withheld, conditioned or delayed.

20. INDEMNITY

(a) RMC Responsibilities: RMC shall, to the fullest extent permitted by law, defend, indemnify and hold harmless PURCHASER Ltd, its present and future members, officers, directors, employees and agents from and against

(a) any and all liabilities and losses resulting from claims or causes of action by any third party to the extent that claims or causes of action arise

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out of, or are in any way related to, RMC's active negligence or wilful misconduct in the performance of RMC's responsibilities under this Agreement, and

(b) the consequences of RMC's violation or alleged violation of permits, statutes, ordinances, orders, rules or regulations of any government entity to the extent that a violation or alleged violation arises out of, or is in any way related to, MC's responsibilities.

(b) PURCHASER's Responsibilities: PURCHASER Ltd shall, to the fullest extent permitted by law, defend, indemnify and hold harmless RMC, their present and future members, officers, directors, employees and agents from and against
(a) any and all liabilities and losses resulting from claims or causes of action by any third party, to the extent that claims or causes of action arise out of, or are in any way related to, PURCHASER's active negligence or willful misconduct in the performance of PURCHASER's responsibilities under this Agreement, and

(b) the consequences of PURCHASER's violation or alleged violation of permits, statutes, ordinances, orders, rules or regulations of any governmental entity to the extent that a violation or alleged violation arises out of or is in any way related to PURCHASER's responsibilities.

(c) Notwithstanding anything contained herein, neither party shall be responsible to the other for any consequential or indirect damages.

21. NO DEDICATION OF FACILITY

Any undertaking by a Party under any provision of this Agreement is rendered strictly as an accommodation and shall not constitute the dedication of any facility by the undertaking Party to the public, to the other Party or to any Third Party. RMC shall have no interest in any facility owned or operated by PURCHASER Ltd and shall not be responsible for any shutdown, abandonment or cleanup of any facility.

PURCHASER Ltd shall have no interest in RMC's facilities and shall not be responsible for any repairs, shutdown, abandonment or cleanup of any RMC facilities.

22. NO THIRD PARTY BENEFICIARIES

None of the promises, rights or obligations contained in this Agreement shall inure to the benefit of any person or entity not a Party to this

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Director/ Authorised Signa

Additional Commissioner
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Agreement.

23. GOVERNING LAW

This Agreement shall be governed by the laws of India and the courts of Raipur shall have the exclusive jurisdiction.

24. ENTIRE AGREEMENT

This Agreement represents and contains the entire agreement and understanding between the Parties with respect to the subject matter hereof and supersedes any and all prior oral and written agreements and understandings. No promises, agreements, or warranties additional to this Agreement shall be deemed to be a part hereof, nor will any alteration, amendment or modification hereto be effective unless confirmed in writing by both Parties.

25. TERMINATION OF AGREEMENT AND TERMINATION PAYMENT

(a) PURCHASER may terminate this Agreement if:

(I) RMC fails to deliver treated sewage water of specified quality and quantity as reduced pursuant to Sections 9.1 for a continuous period of two months; and in such a case, the depreciated value of the cost borne by PURCHASER, towards use of treated sewage water shall be borne by the RMC whereby the PURCHASER shall become entitled to compensation to be made by RMC. If RMC has to pay compensation then the entire pipeline and related infrastructure shall be sole property of the RMC.

(II) PURCHSER is forced into a position of total shutdown of operations because of unforeseen circumstances then the PURCHASER by notification may terminate the Agreement. The PURCHASER shall pay compensation amount as agreed by JOC to RMC.

(b) RMC may terminate this agreement if:

PURCHASER defaults in accepting the treated sewage water meeting the specified quality parameters for a period more than 3 months continuously and not making payment for 3 months continuously.

Procedure for termination - The party wishing to terminate the agreement for the default of the other party; shall follow the procedure as laid down in clause 16 'Default'.

Alok Ferro Alloys Limited

Director/ Authorised Signatory

Additional Commissioner
Muncicpal Corporation Raipur (C.G.)

26. COMPLIANCE WITH LAWS

Both Parties shall comply with all applicable laws and the rules and regulations of Government of India, state, local judicial body having jurisdiction over the activities and operations conducted pursuant to this Agreement.

27. SEVERABILITY

This agreement shall be irreversible in general, however, in case of any change of law/notification/MoP guidelines, the agreement shall be mutually discussed and updated/amended. In the event that any term, covenant or condition of this Agreement or the application of any such term, covenant or condition shall be held invalid as to any person, entity or circumstance by any court or agency having jurisdiction, such term, covenant or condition shall remain in force and effect to the extent not held invalid, and all other terms, covenants and conditions of this Agreement and their application shall not be affected thereby but shall remain in full force and effect unless a court holds that such provisions are not severable from the other provisions of this Agreement.

28. WAIVER

Any waiver at any time by a Party of its rights with respect to any matter arising in connection with this Agreement shall not be deemed a waiver with respect to any subsequent matter. Any waivermust be in writing.

29. AMENDMENT AND MODIFICATION

This Agreement may be amended or modified by mutual consent by an instrument in writing signedby the Parties hereto.

30. NOTICES

Any and all notices or other communications required or permitted by this Agreement or by law to be delivered to, served on by mail or fax, or given to either Party to this Agreement shall be dated and in writing and shall be deemed properly delivered, served, or given when personally delivered or faxed to the Party to whom it is directed or, five business days after postal mail, first- class postage prepaid, addressed to the Parties as follows:

Alok Ferro Alloys Limited

Director/ Authorised Signatory

Additional Commissioner
Muncipal Corporation Raipur (C.G.)

Party	Address
RMC, Raipur	Attn.: The Commissioner,RMC
AFAL, Raipur (PURCHASER)	Attn.: Director, AFAL

Any Party hereto may change its address for the purpose of Section 30.1 by giving written notice of such change in the manner prescribed herein to the other Party to this Agreement.

IN WITNESS WHEREOF, both Parties hereto have by their duly authorised representatives executedthis MOU on the day and year first above written.

For & behalf of

Raipur Municipal Corporation

Additional Commissioner
Municipal Corporation Raipur (C.G.)

PURCHASER

M/s Alok Ferro Alloys Limited

Alok Ferro Alloys Limited

Director/ Authorised Signatory

Witnesses

1. Rakshi Singh Sharma
Khamtarai, Raipur
(C.G.)

2. Lalit
Lalit kumar Tembhare
Urla Raipur

3. Yogesh Kadu
A.G. RMC

Annexure - I

Required/Accepted parameters of treated water from STP by the PURCHASER:-

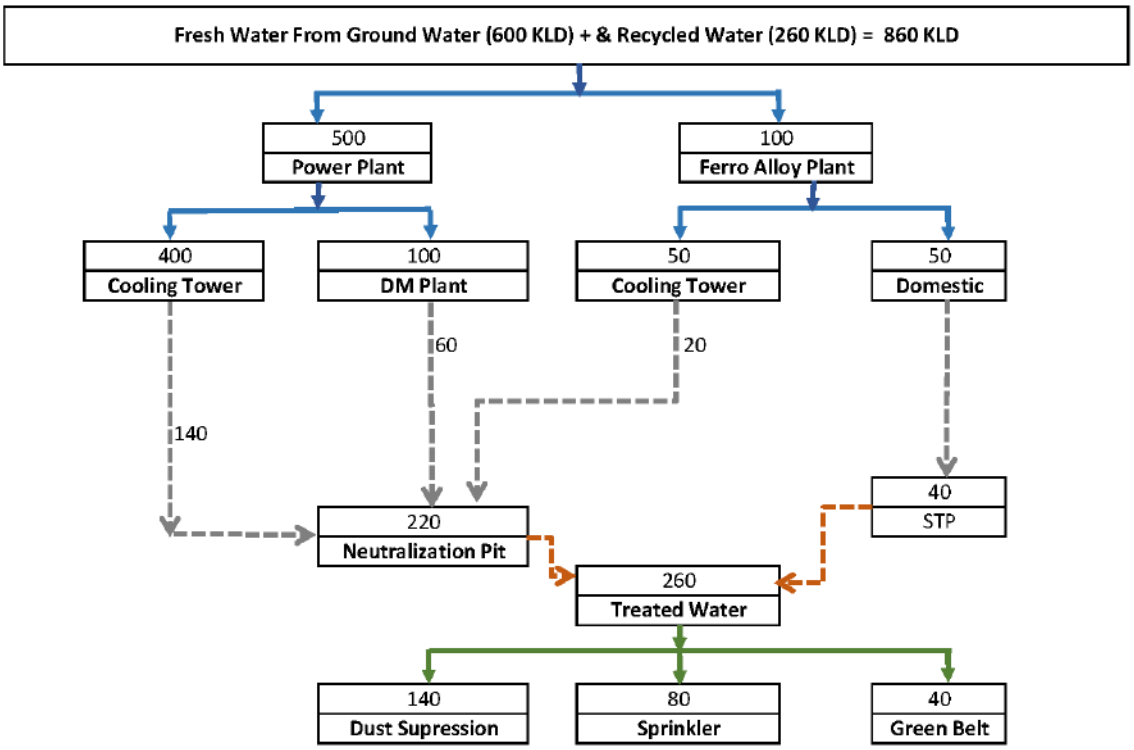
S.T.P WATER REPORT (NIMORA)		
		DATE - 24/04/2023
SR. No.	DESCRIPTION	PERMISSIBLE LIMITS
1	P H	7.3 TO 7.7
2	TOTAL HARDNESS (mg/L)	LESS THAN 650
3	CHLORIDE (mg/L)	200 to 380
4	CONDUCTIVITY (us/cm)	LESS THAN 1200
5	T.D.S (mg/L)	LESS THAN 600
6	ALKALINE P (mg/L)	NIL
7	ALKALINE M (mg/L)	200 to 300
8	TURBIDITY (NTU)	LESS THAN 5
9	TOTAL PHOSPHATE (PPM)	0.02 to 0.05
10	TOTAL SUSPENDED SOLIDS T.S.S. (mg/L)	LESS THAN 2 to 5
11	OIL & GREASE (mg/L)	0.05 to 0.08
12	IRON (mg/L)	0.02 to 0.1
13	COD (mg/L)	LESS THAN 50
14	BOD (mg/L)	10 TO 20
15	AMMONIUM NITROGEN (mg/L)	0.05 to 0.1
16	T.K.N (mg/L)	0.02 to 0.05
17	DISSOLVED OXYGEN (mg/L)	7 TO 8
18	CHLORINE (mg/L)	0.15 to 0.2

Alok Ferro Alloys Limited

Director/ Authorised Signatory

Additional Commissioner
Muncipal Corporation Raipur (C.G.)

Water Balance Diagram (After Expansion)



Annexure IV: LCA Report

Life Cycle Impact Assessment Report

Expansion of Ferro Alloys Production Unit

at Urla Industrial Area, Chhattisgarh

For

M/s Alok Ferro Alloys Limited (AFAL)

Submitted on: 04.06.25

By

ECO ORBIT CONSULTANCY PVT LTD

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***Disclaimer**: This report has been prepared based on information that we believe to be reliable and accurate. We do not warrant the accuracy or completeness of the assumptions made. This report has been prepared for the exclusive use and benefit of the addressee(s) and solely for the purpose for which it is provided. Unless we provide prior written consent, no part of this report should be reproduced, distributed or communicated to any third party. We do not accept any liability if this report is used for an alternative purpose from which it is intended, nor to any third party in respect of this report*.

1 Executive Summary

This study was undertaken to assess the life cycle impact of Ferro Alloys production within the manufacturing process, analysing its environmental and resource implications from cradle to gate.

Environmental assessments for the production of Si-Mn, Fe-Mn, Fe-Si, Pig Iron, and Ferro Alloys (Si-Mn/Fe-Mn) using Ferro Melt Induction Furnaces typically focus on plant uptake and emissions. However, incorporating Life-Cycle Assessment (LCA) provides a more thorough evaluation by also considering the impacts throughout the production process. Therefore, utilizing LCA in product development, alongside traditional methods, is recommended for a more comprehensive assessment.

The results of the life cycle assessment for producing 1 ton of each product at the proposed expansion of the Ferro Alloys Production Unit of M/s Alok Ferro Alloys Limited (AFAL), situated in Urla Industrial Area, Accholi Village, Raipur Tehsil, and District, Chhattisgarh, are detailed in the following chapters.

2 Introduction

In the production of Si-Mn, Fe-Mn, Fe-Si, Pig Iron and Ferro Alloys (Si-Mn/Fe-Mn), we have analysed both overall unit emissions and per-product emissions and evaluated the total emissions associated with production. The impacts of these emissions are discussed in the following study.

LCA Framework:

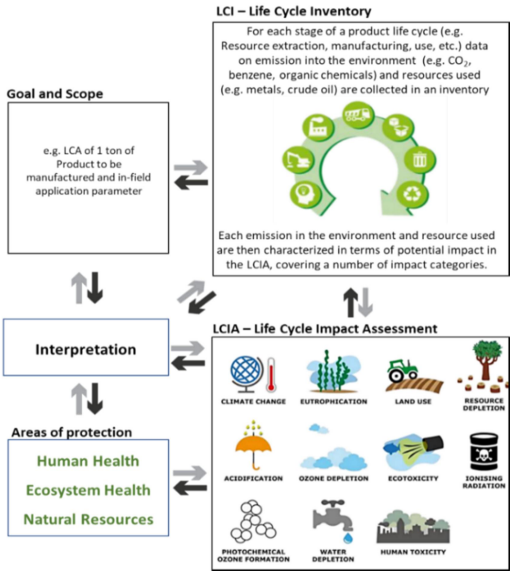
Goal and Scope definition is the LCA phase in which the aim of the study, and in relation to that, the breadth and depth of the study is established as per ISO 14044. It is the first phase of an LCA. The goal of the study includes the purpose of the study. The scope of the study includes function, functional unit, and reference flow, initial choices (system boundaries, data categories, inputs and outputs, data quality, critical review), critical review and other procedural aspects.

Life Cycle Assessment (LCA) is a step-by-step process for computing the lifetime environmental impact of a product or service. The complete process of LCA includes goal and scope definition, inventory analysis, impact assessment, and interpretation. The process is naturally iterative as the quality and extensiveness of data and its credibility is constantly being verified.

Life Cycle Inventory (LCI), which is the data collection portion of LCA. LCI is the straight-forward accounting of everything involved in the "system" of interest. It consists of detailed tracking of all the flows in and out of the product system, including raw resources or materials, energy by type, water, and emissions to air, water and land by specific substance. This kind of analysis can be extremely complex and may involve dozens of individual unit processes in a supply chain (e.g., the extraction of raw resources, various primary and secondary production processes, transportation, etc.) as well as hundreds of tracked substances.

Life Cycle Impact Assessment (LCIA). In LCIA, the inventory is analysed for environmental impact. For example, manufacturing a product may consume a known volume of natural gas (this data is part of the inventory); in the LCIA phase, the global warming impact from combustion of that fuel is calculated. There are various methods globally for categorizing and characterizing the life cycle impact of the flows to and from the environment, which can somewhat complicate the comparability of different LCA studies.

Figure 2-1 Life Cycle Assessment steps: goal and scope definition, life cycle inventory, life cycle impact assessment and interpretation



3 Methodology

This study was carried out to assess the life cycle impact of the 5 products to be manufactured at the facility.

1. Si-Mn
2. Fe-Mn
3. Fe-Si
4. Pig Iron
5. Ferro Alloys (Si-Mn/Fe-Mn)

3.1 Software and Database Details

To evaluate the entire synthesis holistically, detailed foreground data and background data are necessary. In Figure 3.1, the system boundary is shown schematically. Data regarding the production process and mass balance steps were obtained. All processes were modelled by considering the Ecoinvent version 3.10 database on SimaPro Software. In cases where no database was available, reference published literature was used to create the reference flows and processes. Life cycle impact assessment (LCIA) was conducted by applying the LCIA methodology CML IA Baseline World 2000 for characterizing human toxicological and ecotoxicological impacts of emissions.

The inventory database comprises of input and output flows from different product systems including material, resources, energy and emission flows. The input inventory is based on the manufacturing data provided by the proponent and the LCA database available. The inventory was classified into the following groups: input materials, waste material and products & by-products.

3.2 Goal and scope

The goal of this LCA study is to study the impacts of the production of 5 products for the proposed establishment of M/s Alok Ferro Alloys Limited (AFAL).

3.3 Functional Unit

A functional unit describes a quantity of a product or product system on the basis of the performance it delivers in its end-use application. Functional units are foundational to LCA, as they enable objective comparisons across different products or systems that serve the same final function. For comparing the impact of products, a constant parameter is required for both materials, i.e. to achieve apple to apple comparison. The functional unit set was the production of 1 ton of the product.

3.4 System boundary

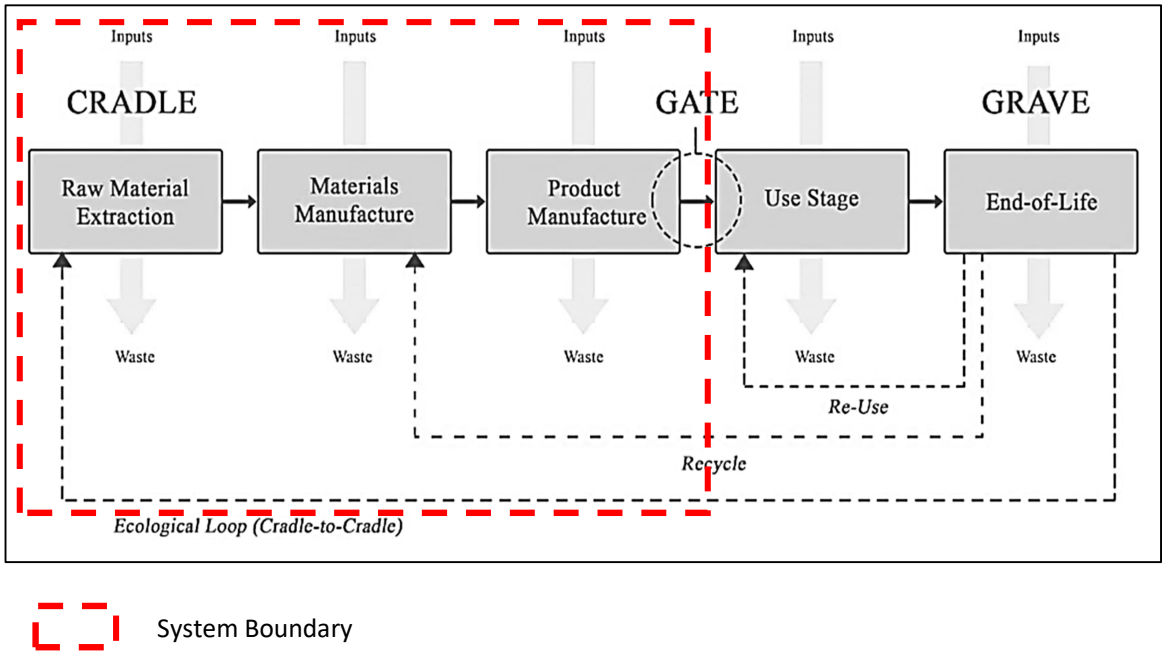
The LCA study included impact of the processes included in the life cycle of a product. This study was carried out from ‘cradle to gate’ that included the extraction and procurement of raw materials required for the production of chemicals, transportation of these raw materials to the production site, and manufacturing of the chemicals and its packaging and other secondary impacts of the distribution of the chemicals to different locations and end use of the product.

Figure 2-1 shows all the processes that are included while performing LCA. The waste generated after the use of products is not considered under the scope of the present study. All the raw material and the energy consumption at all stages in the product's life cycle is considered while calculating its impact on the environment.

The system boundary definition is necessary in order to outline the processes which will be involved in, or omitted from the entire analysis. Depending on the start point and endpoint of the system boundary it will be defined as either of the following: cradle to grave, cradle to gate, gate to gate, gate to grave etc. Following Figure 3-1 illustrates the system boundary types.

For this study, a cradle-to-gate approach is followed, for the products which includes the environmental aspects and potential impacts throughout a product's life cycle from raw materials transportation, energy production chain, use and waste generation, production of the product, process wastes. The end use of the product is not considered.

Figure 3-1: System Boundaries in LCA



3.5 Life Cycle Inventory

Life Cycle Inventory (LCI) analysis involves creating an inventory of flows from and to nature (ecosphere) for a product system. It is the process of quantifying raw material and energy requirements, atmospheric emissions, land emissions, water emissions, resource uses and other releases over the life cycle of a product or process. In other words, it is the aggregation of all elementary flows related to each unit process within a product system.
To develop the inventory, it is often recommended to start with a flow model of the technical system using data on inputs and outputs of the product system. The flow model is typically illustrated with a flow diagram that includes the activities that are going to be assessed in the relevant supply chain and gives a clear picture of the technical system boundaries. Generally, the more detailed and complex the flow diagram, the more accurate the study and results. The input and output data needed for the construction of the model is collected for all activities within the system boundary, including from the supply chain (referred to as inputs from the techno sphere).

3.6 Life cycle Impact Analysis

Life Cycle Inventory analysis is followed by life cycle impact assessment (LCIA). This phase of LCA is aimed at evaluating the potential environmental and human health impacts resulting from the elementary flows determined in the LCI. The ISO 14040 and 14044 standards require the following mandatory steps for completing an LCIA:

The Mandatory steps are selection, classification and characterization.

Selection includes choice of impact categories, category indicators, and characterization models. The impacts should be relevant to the geographical region of the study and justification for each chosen impact should be discussed. Often times in practice, this is completed by choosing an already existing LCIA method (e.g. CML-IA which is used for this study. It is an LCA methodology developed by the Center of Environmental Science (CML) of Leiden University in The Netherlands. In classification of inventory results, the LCI results are assigned to the chosen impact categories based on their known environmental effects. In practice, this is often completed using LCI databases or LCA software. Common impact categories include Global Warming, Ozone Depletion, Acidification, Human Toxicity, etc.

Characterization, which quantitatively transforms the LCI results within each impact category via "characterization factors" (also referred to as equivalency factors) to create "impact category indicators." In other words, this step is aimed at answering "how much does each result contribute to the impact category?" A main purpose of this step is to convert all classified flows for an impact into common units for comparison. For example, for Global Warming Potential, the unit is generally defined as CO_2-equiv or CO_2-e (CO_2 equivalents) where CO_2 is given a value of 1 and all other units are converted respective to their related impact.

Table 3.1: Impact categories and category indicators

Indicators	Impact Category	Unit	Description
Midpoint Indicators	Global warming potential (GWP 100a)	kg CO_2eq	Indicator of potential global warming due to emissions of greenhouse gases into the air.
	Terrestrial ecotoxicity	Kg 1,4-DBeq	Impact on land-dependent organisms and their environment
	Human Toxicity	kg 1,4-DBeq	Impact on humans of toxic substances emitted to the environment and divided into non-cancer and cancer-related toxic substances.
	Freshwater aquatic ecotoxicity	kg 1,4-DBeq	Impact on freshwater organisms of toxic substances emitted to the environment.
	Acidification	kg SO_2eq	Indicator of the potential acidification of soils and water due to the release of gases such as nitrogen oxides and sulphur oxides
	Eutrophication	kg PO_4^{3-}eq	An indicator of the enrichment of the freshwater ecosystem with nutritional elements, due to the emission of nitrogen or phosphorus-containing compounds

3.7 Interpretation

Life cycle interpretation is a systematic technique to identify, quantify, check, and evaluate information from the results of the life cycle inventory and/or the life cycle impact assessment. The results from the inventory analysis and impact assessment are summarized during the interpretation phase. The outcome of the interpretation phase is a set of conclusions and recommendations for the study.

A key purpose of performing life cycle interpretation is to determine the level of confidence in the final results and communicate them in a fair, complete, and accurate manner. Interpretation begins with understanding the accuracy of the results, and ensuring they meet the goal of the study. This is accomplished by identifying the data elements that contribute significantly to each impact category, evaluating the sensitivity of these significant data elements, assessing the completeness and consistency of the study, and drawing conclusions and recommendations based on a clear understanding of how the LCA was conducted and the results were developed.

Specifically, the goal of the LCA interpretation phase is to identify the activities that have the most environmental negative impact on land, sea, and air resources. Once the identification is done mitigation measures for the same may be recommended for the reduction of these impacts.

4 Project Details

4.1 Project description

M/s Alok Ferro Alloys Limited (AFAL) manufacturing unit has proposed Si-Mn, Fe-Mn, Fe-Si, Pig Iron, and Ferro Alloys (Si-Mn/Fe-Mn) production at Urla, Chhattisgarh. The total production capacity of the plant will be 19,000 TPA Si-Mn, 28,000 TPA Fe-Mn, 9,000 TPA Fe-Si and 28,500 TPA Pig Iron.

The project will be involved in the production of Si-Mn, Fe-Mn, Fe-Si, and Pig Iron. Following is the list of proposed products considered for LCA analysis.

Table 4.1 List of proposed products and production details

Sr. No	Name of Product	Proposed capacity (Ton/ Annum)
1	Si-Mn	19000
2	Fe-Mn	28000
3	Fe-Si	9000
4	Pig Iron	28500
5	Ferro Alloys (Si-Mn/Fe-Mn) by Ferro-Melt Induction Furnace	6000

5 LCA and LCIA

5.1 Goal and Scope

5.1.1 Goal

1) To ascertain the emissions and their impacts from the production process of 5 products at the Chhattisgarh Unit of M/s Alok Ferro Alloys Limited (AFAL) to be located at Urla Industrial Area, Chhattisgarh
2) To assess the reductions achieved due to the different mitigation measures in the midpoint impact categories

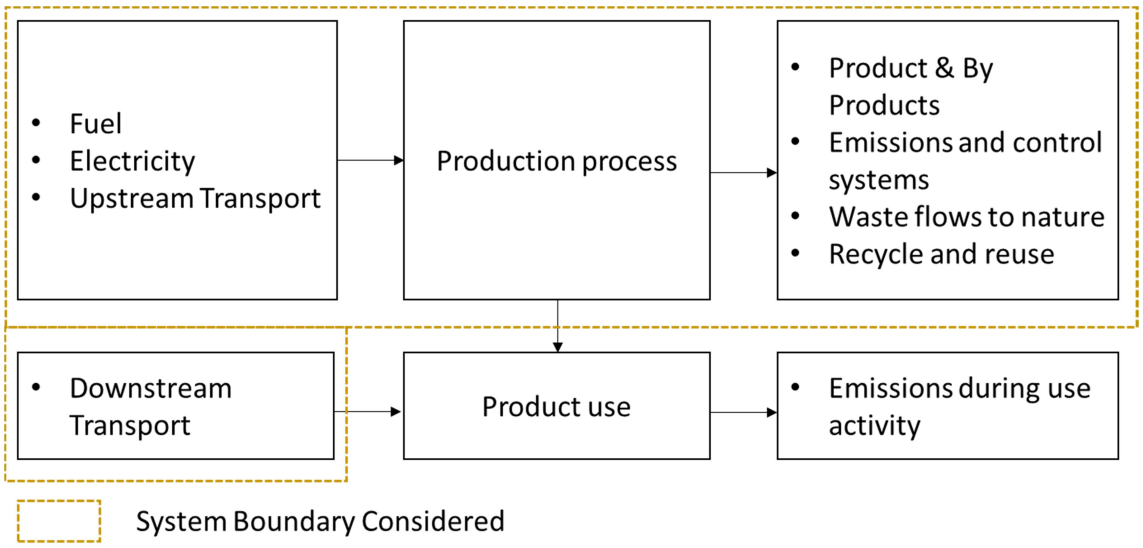
5.1.2 Scope

The function of the system is the production of Ferro Alloys. The functional unit thus is considered as production of 1 ton of product.

5.1.3 System Boundary

This study covers the raw material transportation to the manufacturing site, the production process of the process, downstream transportation of the product. This study excludes the packaging at the user's side and the product packaging disposal after use.

Figure 5-1 System Boundary



5.1.4 Data Assumptions

The preliminary assumptions are based on the stages and impact categories selected as well as general assumptions about the future stages of the life cycle, e.g., disposal routes, types of transport etc. Following are the specific LCA assumptions for this study:

- Transport distances for raw materials are based on the data provided in by the client.
- For upstream transportation of raw materials and downstream transportation of the product, a freight lorry with a 7.5 to 16-ton capacity and Euro 6 standards (equivalent to Indian Bharat Stage VI) from the Ecoinvent database is considered for study.
- For hazardous waste transport, a freight lorry with a 3.5 to 7-ton capacity and Euro 6 standards (equivalent to Indian Bharat Stage VI) from the Ecoinvent database is considered for study.
- For upstream transportation of raw materials freight, sea, container ship from the Ecoinvent database is considered for study.
- For upstream transportation through sea, 10402.68 km considered for Mn Ore and 2500 km considered for Coal transport.
- For downstream transportation of the final product, the road transport distance is considered to be 500 km.
- For hazardous waste transportation, the road transport distance is considered to be 50 km.
- Embodied carbon of raw materials (Scope 3 – Category 1) used in production is not considered in this assessment.
- The electricity mix data in the Ecoinvent 3.10 database used in SimaPro 9.6 is country and region-specific for the Western Grid of India, which is used for the study.
- The power Consumption (kWh) Per ton of product is considered as per the data provided in by the client.
- Captive power generation will be regulated within the complex after prioritizing power generated in the plant, with minimal reliance on the State grid for electricity supply. Therefore, Reject coal / Coal are considered as fuel source for electricity in process.
- For electricity generation in a 1 MW captive power plant, total 1.9 ton/MWh of fuel is considered from the EIA Report. Reject coal, (75%) and F grade Coal (25%) were considered as fuel inputs. A separate process for CPP-based electricity generation was created in the SimaPro software using the Ecoinvent 3.10 database, with inputs added based on the required electricity output.
- In the SimaPro software for the base case it is considered that 100% of the electricity is generated from a Captive Power Plant.
- In the SimaPro software for proposed case, it is considered that 88% of the electricity is generated from a Captive Power Plant, while 12% is sourced from the electricity grid.
- In emissions to air, the emissions from fuel consumption and the emissions from the process are considered.
- The packaging material is not considered part of the cargo, as it is transported in covered trucks only.

5.2 Life Cycle Analysis

The life cycle analysis of the 05 products was done using LCIA methodology (CML IA Baseline World 2000). The result of each product is shown below:

5.2.1 Si-Mn

The total production capacity is 19000 ton/Annum.

Table 5-1 Mass Balance of the Product Si-Mn Proposed Case Manufacturing Process

	Mass flow	Input in MT				Output	MT
Mass Flow	Coal	1.59	→	Formation of Product Si-Mn proposed case	→	Si-Mn	**1**
	Rejected Coal	4.77	→		→	Carbon dioxide(kg)	8173.09
			→		→	Methane(kg)	0.86
Non-Mass Flow	Electricity from CPP (kWh)	3344.00	→		→	Nitrous Oxide(kg)	0.13
	Electricity from CSPDC (kWh)	456	→				
	Transport (upstream) (tkm)	1891.6	→				
	Sea transport (upstream) (tkm)	26006.7	→				
	Transport (downstream) (tkm)	500	→				
	Hazardous (downstream) (tkm)	50	→				

Figure 5-2 Impact categories of life cycle of 1ton of Si-Mn Proposed Case

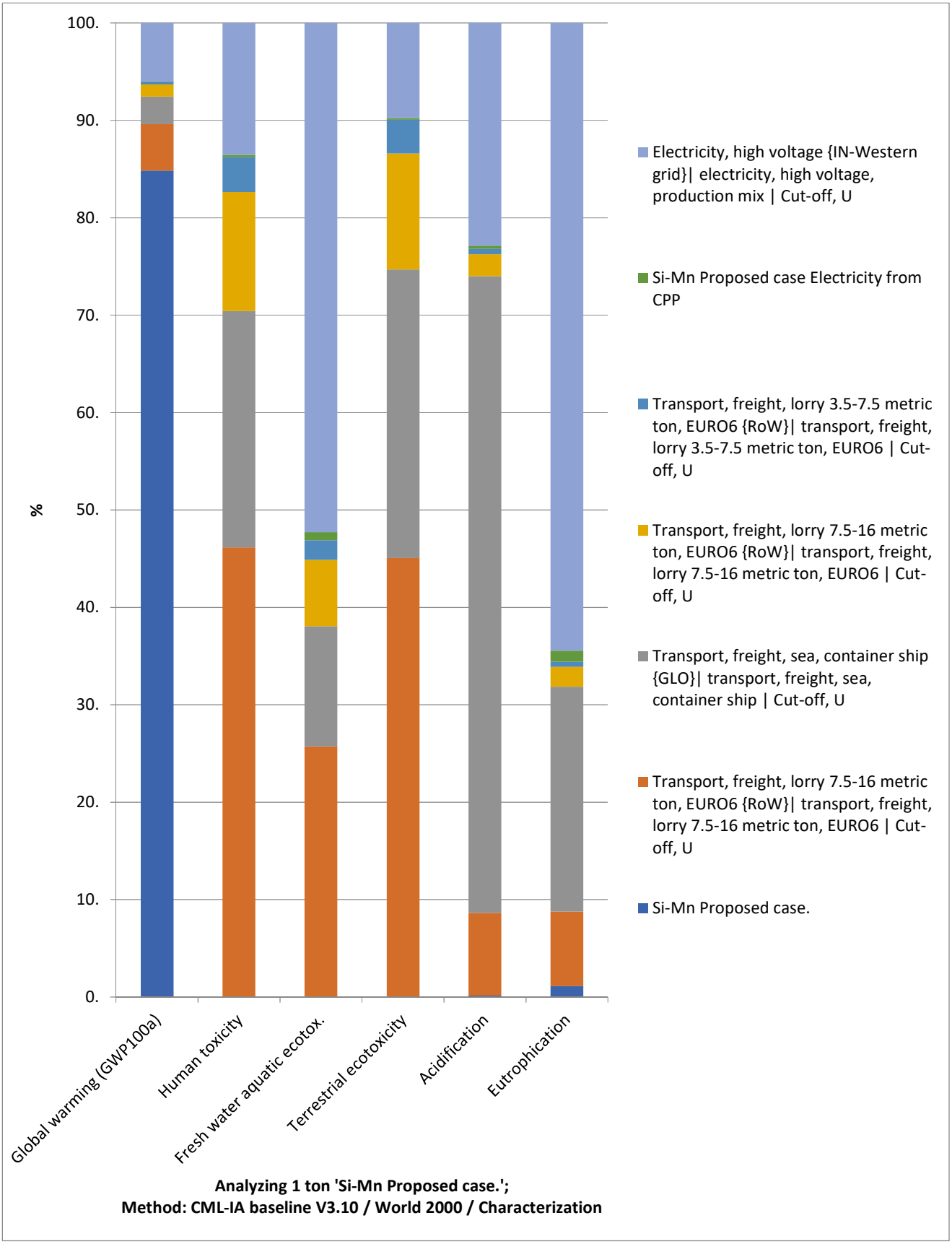


Table 5-2 **LCIA Result of 1 ton of Si-Mn Proposed Case**

Impact category	To be considered in scope (1,2 or 3)	Global warming potential (GWP 100a)	Human Toxicity	Fresh water aquatic ecotoxicity	Terrestrial ecotoxicity	Acidification	Eutrophication
Unit		**kg CO_2 eq**	**kg 1,4-DB eq**	**kg 1,4-DB eq**	**Kg 1,4-DBeq**	**kg SO_2 eq**	**kg PO_4^{3-}eq**
Si-Mn (Direct Emissions from fuel combustion)	1	8232.39	0.00	0.00	0.00	0.01	0.04
Transport Road (upstream) (tkm)	3	461.95	1504.45	185.39	9.75	0.84	0.24
Transport Sea (upstream) (tkm)	3	275.35	791.61	88.91	6.41	6.49	0.73
Transport Road (downstream) (tkm)	3	122.11	397.67	49.00	2.58	0.22	0.06
Hazardous Waste Transport (downstream) (tkm)	3	29.45	116.60	14.42	0.75	0.06	0.02
Electricity from CPP (kWh)	3	3.59	7.77	6.08	0.03	0.03	0.04
Electricity from CSPDC (kWh) (Embodied energy of fuel)	2	579.86	441.73	376.72	2.12	2.27	2.03
Total		**9704.70**	**3259.81**	**720.52**	**21.64**	**9.93**	**3.15**

Figure 5-3 Carbon footprint Emissions and classifications per for Life Cycle of 1ton Si-Mn Proposed Case

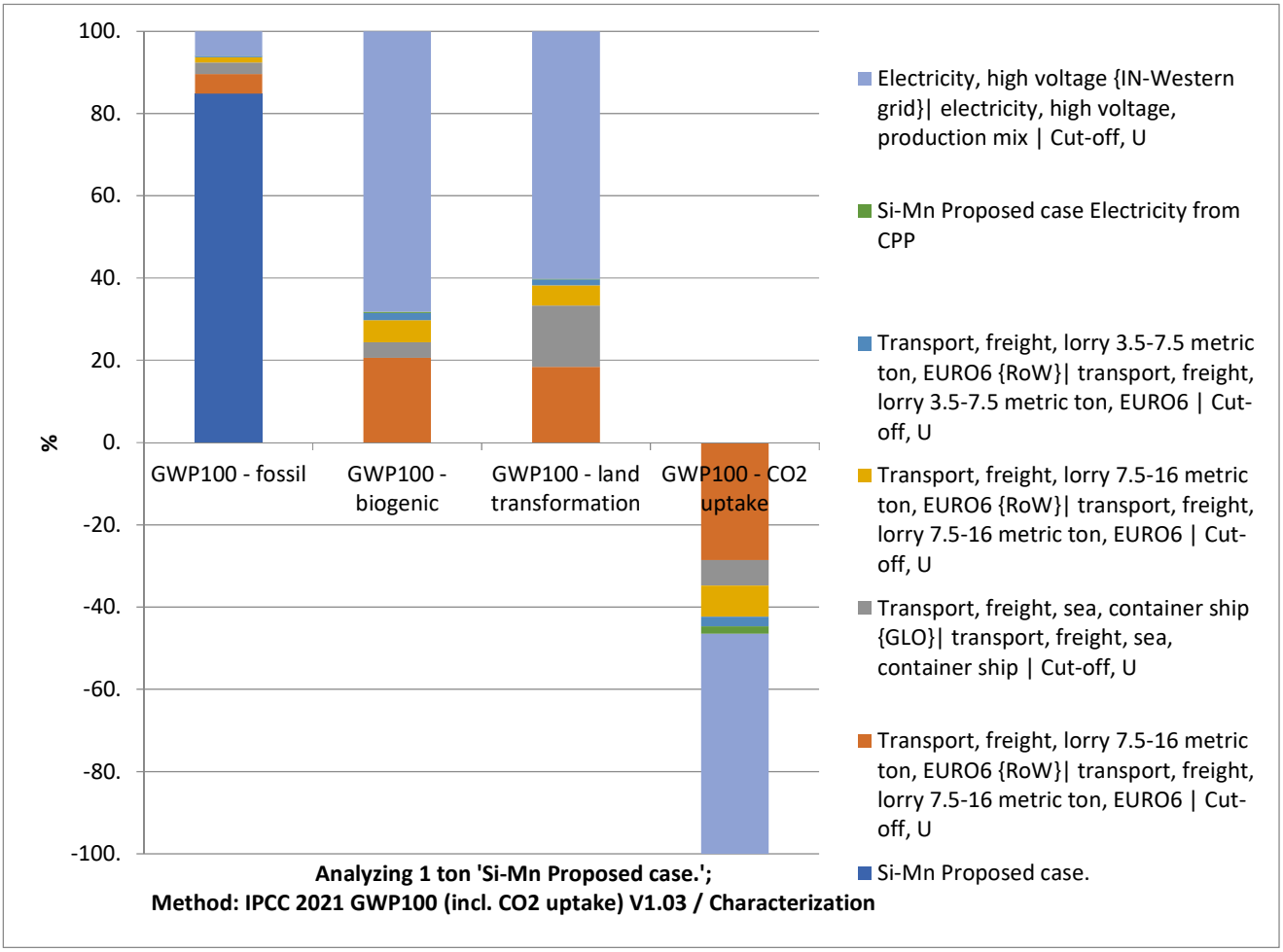


Table 5-3 Scoping of Si-Mn Proposed Case for 1 ton

Scoping	Emissions in $kgCO_2eq$	Percent contribution	Contributing Parameter
Scope 1	8232.39	84.8%	Reject Coal/ Coal fuel combustion direct emissions for the generation of electricity & Process Emission
Scope 2	579.86	6.0%	Purchased Electricity from Grid supply
Scope 3	892.45	9.2%	Reject Coal/ Coal embodied energy, Upstream and Downstream Transportation.
Total	**9704.70**	**100.00%**	

Interpretation of Results:

The major contributors to the overall GWP are:

1. Direct emissions from Coal/ Rejected Coal combustion releases a major source of carbon dioxide (CO2) emissions, a greenhouse gas that contributes to global warming and climate change. Additionally, it releases various air pollutants such as sulfur dioxide (SO2), nitrogen oxides (NOx), particulate matter (PM), and mercury (Hg). These pollutants contribute to smog formation, acid rain, respiratory issues, and ecosystem damage.

2. Electricity from Grid: In 2020, India's electricity generation produced 41.7% more greenhouse gases compared to the global average. This is largely due to the fact that 77% of the country's electricity is derived

from fossil fuels. Coal-based power generation alone contributes to 40% of India's total greenhouse gas emissions. The process of power generation, particularly from coal, can release hazardous metals and pollutants into water bodies. For example, coal ash, which is disposed of in millions of tons each year, can contain dangerous contaminants such as mercury, cadmium, and arsenic. Additionally, the construction and upkeep of transmission lines can have detrimental effects on the environment. These activities can lead to the destruction of plant and animal life and disrupt natural habitats.

3. Transportation: Due to the large quantity of raw materials, transportation emissions are high. The combustion of fossil fuels in vehicles, such as gasoline and diesel, releases carbon dioxide (CO2) and other greenhouse gases (GHGs) into the atmosphere, contributing to global warming and climate change. Additionally, transportation constitutes a substantial portion of global energy consumption, mainly derived from fossil fuels.

Figure 5-4 Carbon footprint Emissions and classifications per for Life Cycle of 1ton Si-Mn Base Case

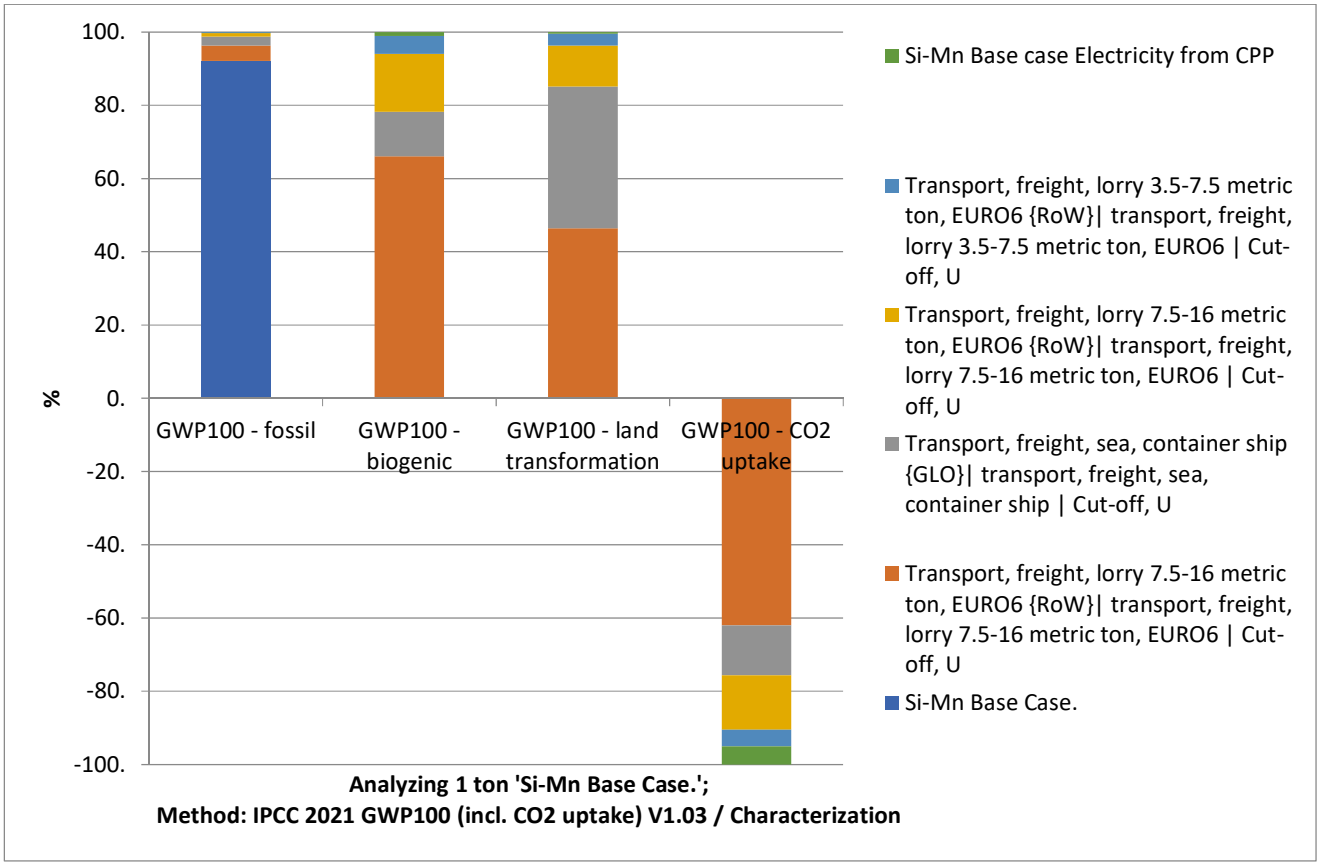


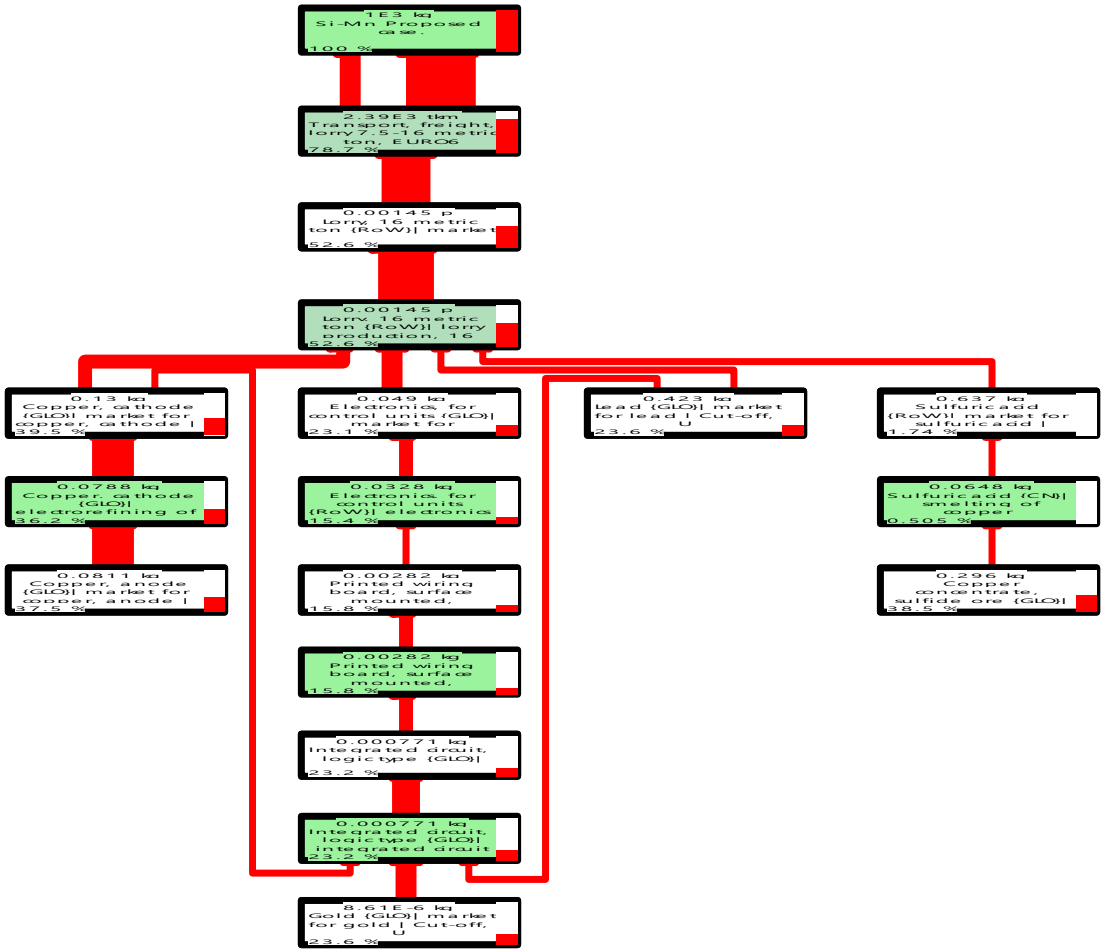
Table 5-4 Scoping of Si-Mn Base Case for 1 ton

Scoping	Emissions in $kgCO_2eq$	Percent contribution	Contributing Parameter
Scope 1	11447.19	92.1%	Reject Coal/ Coal fuel combustion direct emissions for the generation of electricity & Process Emission
Scope 2	0.00	0.0%	Purchased Electricity from Grid supply
Scope 3	977.20	7.9%	Reject Coal/ Coal embodied energy, Upstream and Downstream Transportation.
Total	**12424.39**	**100%**	

Table 5-5:Product Life Cycle Stagewise Results of Si-Mn Proposed Case

Sr. No.	Life Cycle Stages	Global warming (GWP100a)	Human toxicity	Freshwater aquatic ecotox.	Terrestrial ecotoxicity	Acidification	Eutrophication
	Unit	**kg CO_2 eq**	**kg 1,4-DB eq**	**kg 1,4-DB eq**	**kg 1,4-DB eq**	**kg SO2 eq**	**kg PO_4^{3-}eq**
Raw Material Processing & Raw Material Transport							
1	Raw material– Transport	461.95	1504.45	185.39	9.75	0.84	0.24
2	Raw material– Transport by sea	275.35	791.61	88.91	6.41	6.49	0.73
3	Reject Coal/ Coal Embodied Energy	3.59	7.77	6.08	0.03	0.03	0.04
Manufacturing Process							
4	Reject Coal/Coal combustion for the generation of electricity & Process Emission	8232.39	0.00	0.00	0.00	0.01	0.04
5	Electricity from Supply Grid	579.86	441.73	376.72	2.12	2.27	2.03
Downstream Transportation							
6	Product - Downstream Transportation by Road	122.11	397.67	49.00	2.58	0.22	0.06
7	Hazardous Waste Transportation by Road	29.45	116.60	14.42	0.75	0.06	0.02

Figure 5-5 Process Flow for Si-Mn in SimaPro



5.2.2 Fe-Mn

The total production capacity is 28000 ton/Annum.

Table 5-6:Mass Balance of the Fe-Mn Proposed Case Manufacturing Process

	Mass flow	Input in MT				Output	MT
Mass Flow	Coal	1.09	→	Formation of Product Fe-Mn proposed case	→	Fe-Mn	**1**
	Rejected Coal	3.26	→		→	Carbon dioxide(kg)	5592.11
			→		→	Methane(kg)	0.59
Non-Mass Flow	Electricity from CPP (kWh)	2288.00	→		→	Nitrous Oxide(kg)	0.09
	Electricity from CSPDC (kWh)	312	→				
	Transport (upstream) (tkm)	1847.1	→				
	Sea transport (upstream) (tkm)	26681.7	→				
	Transport (downstream) (tkm)	500	→				
	Hazardous (downstream) (tkm)	40	→				

Figure 5-6 Impact categories of life cycle of 1ton of Fe-Mn Proposed Case

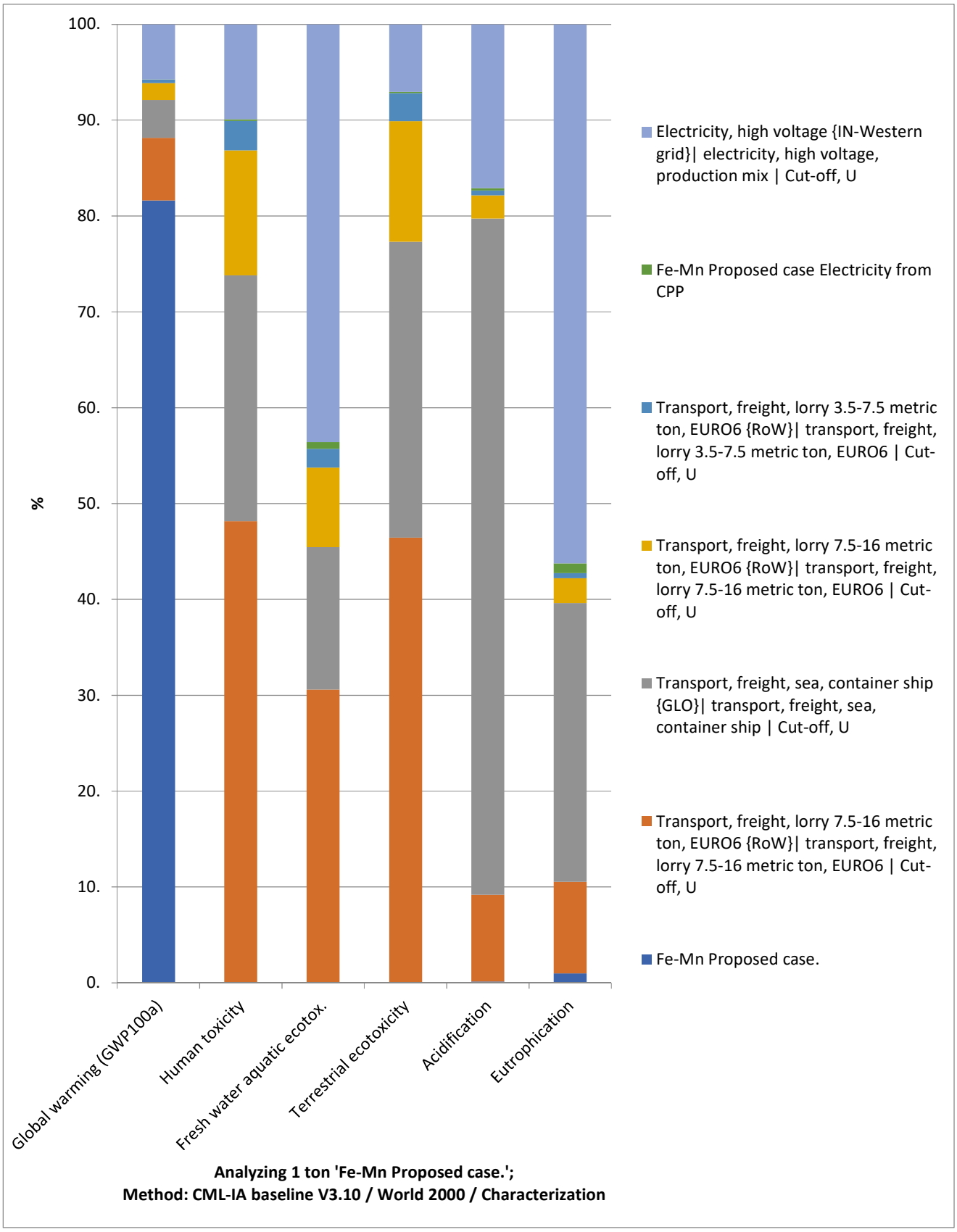


Table 5-7 LCIA Result of 1 ton of Fe-Mn Proposed Case

Impact category	To be considered in scope (1,2 or 3)	Global warming potential (GWP 100a)	Human Toxicity	Fresh water aquatic ecotoxicity	Terrestrial ecotoxicity	Acidification	Eutrophication
Unit		kg CO_2 eq	kg 1,4-DB eq	kg 1,4-DB eq	Kg 1,4-DBeq	kg SO_2 eq	kg PO_4^{3-}eq
Fe-Mn proposed case (Direct Emissions from fuel combustion)	1	5633.22	0.00	0.00	0.00	0.01	0.02
Transport Road (upstream) (tkm)	3	451.08	1469.05	181.02	9.52	0.82	0.24
Transport Sea (upstream) (tkm)	3	272.04	782.08	87.84	6.33	6.41	0.72
Transport Road (downstream) (tkm)	3	122.11	397.67	49.00	2.58	0.22	0.06
Hazardous Wate Transport (downstream) (tkm)	3	23.56	93.28	11.53	0.60	0.05	0.01
Electricity from CPP (kWh)	3	2.45	5.31	4.16	0.02	0.02	0.02
Electricity from CSPDC (kWh) (Embodied energy of fuel)	2	396.75	302.23	257.76	1.45	1.55	1.39
Total		**6901.21**	**3049.63**	**591.32**	**20.50**	**9.09**	**2.47**

Figure 5-7 Carbon footprint Emissions and classifications per for Life Cycle of 1ton Fe-Mn Proposed Case

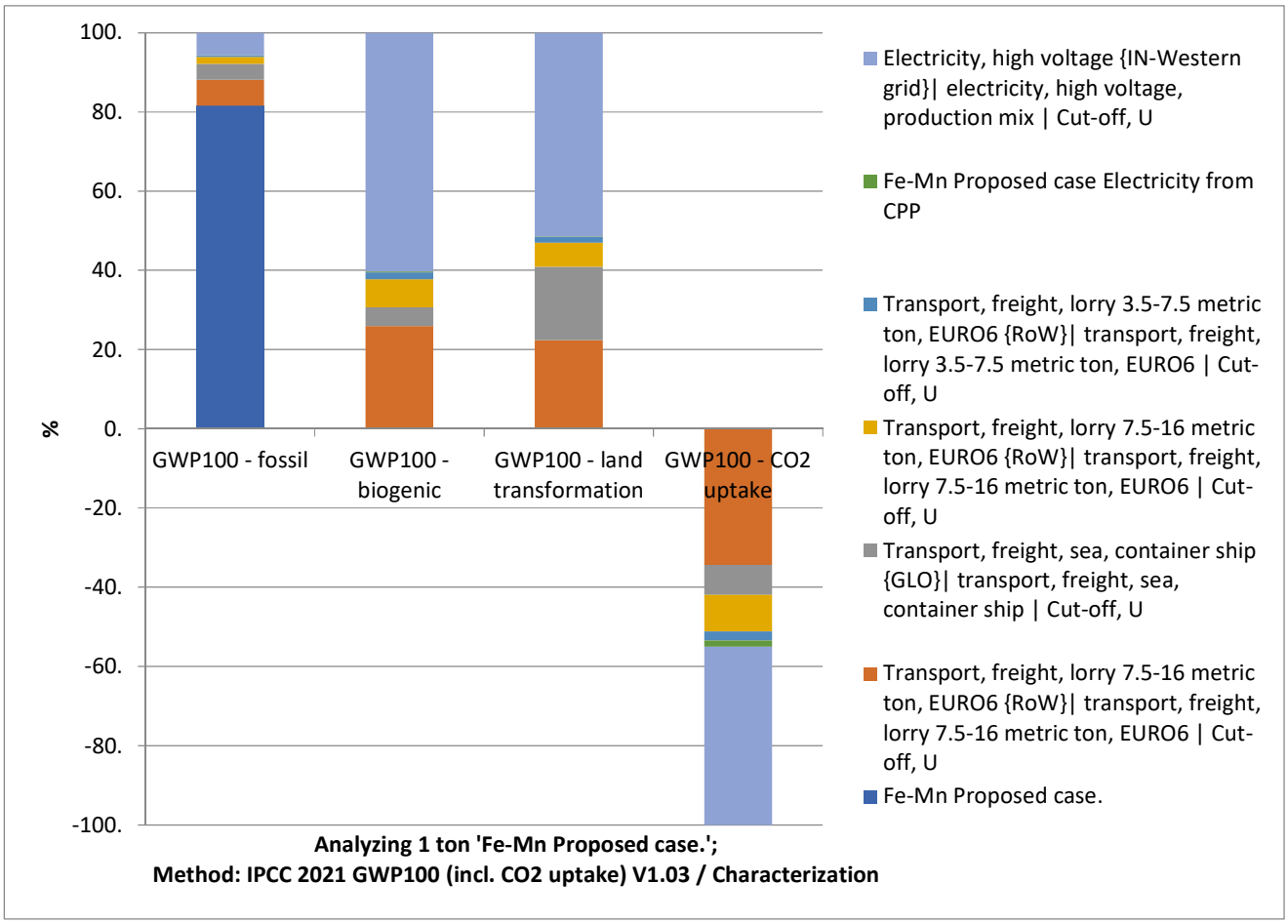


Table 5-8 Scoping of Fe-Mn Proposed Case for 1 ton

Scoping	Emissions in $kgCO_2eq$	Percent contribution	Contributing Parameter
Scope 1	5633.22	81.6%	Reject Coal/ Coal fuel combustion direct emissions for the generation of electricity & Process Emission
Scope 2	396.75	5.7%	Purchased Electricity from Grid supply
Scope 3	871.24	12.6%	Reject Coal/ Coal embodied energy, Upstream and Downstream Transportation.
Total	**6901.21**	**100**	

Interpretation of Results:

The major contributors to the overall GWP are:

1. Direct emissions from Coal/ Rejected Coal combustion releases a major source of carbon dioxide (CO2) emissions, a greenhouse gas that contributes to global warming and climate change. Additionally, it releases various air pollutants such as sulfur dioxide (SO2), nitrogen oxides (NOx), particulate matter (PM), and mercury (Hg). These pollutants contribute to smog formation, acid rain, respiratory issues, and ecosystem damage.

2. Transportation: Due to the large quantity of raw materials, transportation emissions are high. The combustion of fossil fuels in vehicles, such as gasoline and diesel, releases carbon dioxide (CO_2) and other greenhouse gases (GHGs) into the atmosphere, contributing to global warming and climate change. Additionally, transportation constitutes a substantial portion of global energy consumption, mainly derived from fossil fuels.

3. Electricity from Grid: In 2020, India's electricity generation produced 41.7% more greenhouse gases compared to the global average. This is largely due to the fact that 77% of the country's electricity is derived from fossil fuels. Coal-based power generation alone contributes to 40% of India's total greenhouse gas emissions. The process of power generation, particularly from coal, can release hazardous metals and pollutants into water bodies. For example, coal ash, which is disposed of in millions of tons each year, can contain dangerous contaminants such as mercury, cadmium, and arsenic. Additionally, the construction and upkeep of transmission lines can have detrimental effects on the environment. These activities can lead to the destruction of plant and animal life and disrupt natural habitats.

Figure 5-8 Carbon footprint Emissions and classifications per for Life Cycle of 1ton Fe-Mn Base Case

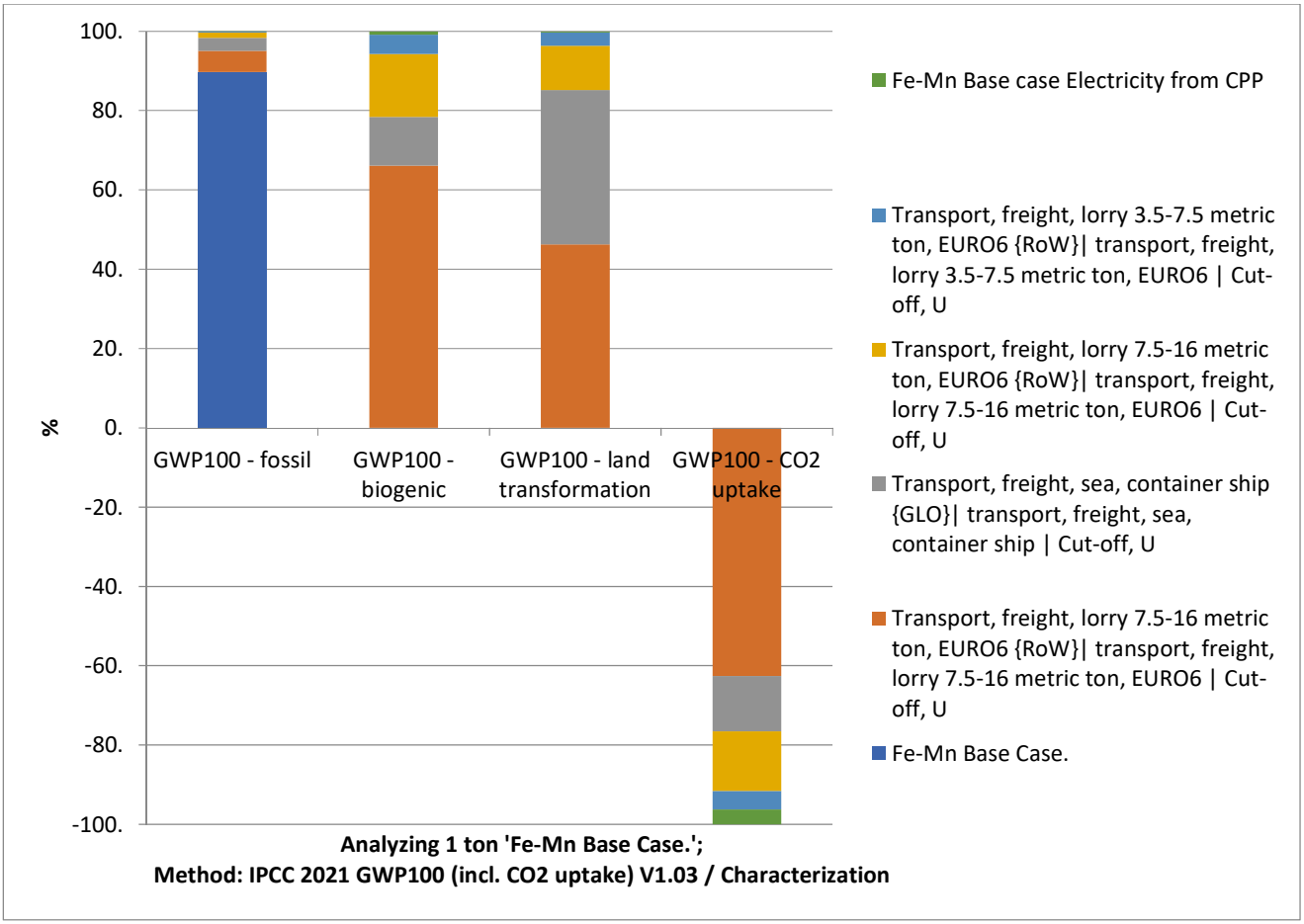


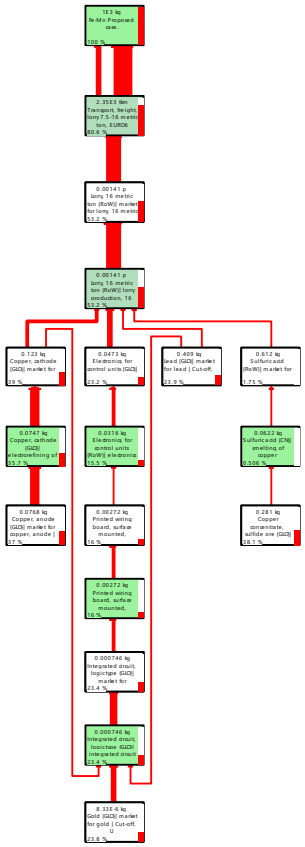
Table 5-9 Scoping of Fe-Mn *Base Case* for 1 ton

Scoping	Emissions in $kgCO_2eq$	Percent contribution	Contributing Parameter
Scope 1	8492.29	89.7%	Reject Coal/ Coal fuel combustion direct emissions for the generation of electricity & Process Emission
Scope 2	0.00	0.0%	Purchased Electricity from Grid supply
Scope 3	972.38	10.3%	Reject Coal/ Coal embodied energy, Upstream and Downstream Transportation.
Total	**9464.67**	**100%**	

Table 5-10:Product Life Cycle Stage Wise Results of Fe-Mn Proposed Case

Sr. No.	Life Cycle Stages	Global warming (GWP100a)	Human toxicity	Freshwater aquatic ecotox.	Terrestrial ecotoxicity	Acidification	Eutrophication
	Unit	**kg CO_2 eq**	**kg 1,4-DB eq**	**kg 1,4-DB eq**	**kg 1,4-DB eq**	**kg SO2 eq**	**kg PO_4^{3-}eq**
Raw Material Processing & Raw Material Transport							
1	Raw material–Transport	451.08	1469.05	181.02	9.52	0.82	0.24
2	Raw material–Transport by sea	272.04	782.08	87.84	6.33	6.41	0.72
3	Reject Coal/ Coal Embodied Energy	2.45	5.31	4.16	0.02	0.02	0.02
Manufacturing Process							
4	Reject Coal/ Coal combustion for the generation of electricity & Process Emission	5633.22	0.00	0.00	0.00	0.01	0.02
5	Electricity from Supply Grid	396.75	302.23	257.76	1.45	1.55	1.39
Downstream Transportation							
6	Product - Downstream Transportation by Road	122.11	397.67	49.00	2.58	0.22	0.06
7	Hazardous Waste Transportation by Road	23.56	93.28	11.53	0.60	0.05	0.01

Figure 5-9 Process Flow for Fe-Mn in SimaPro



5.2.3 Fe-Si

The total production capacity is 9000 ton/Annum.

Table 5-11 Mass Balance of the Product Fe-Si Manufacturing Process

	Mass flow	Input in MT				Output	MT
Mass Flow	Coal	3.34	→	Formation of Product Fe-Si proposed case	→	Fe-Si	**1**
	Rejected Coal	10.03	→		→	Carbon dioxide(kg)	17206.50
			→		→	Methane(kg)	1.82
Non-Mass Flow	Electricity from CPP (kWh)	7040.00	→		→	Nitrous Oxide(kg)	0.27
	Electricity from CSPDC (kWh)	960	→				
	Transport (upstream) (tkm)	837	→				
	Sea transport (upstream) (tkm)	1500	→				
	Transport (downstream) (tkm)	500	→				
	Hazardous (downstream) (tkm)	6.25	→				

Figure 5-10 Impact categories of life cycle of 1ton of Fe-Si

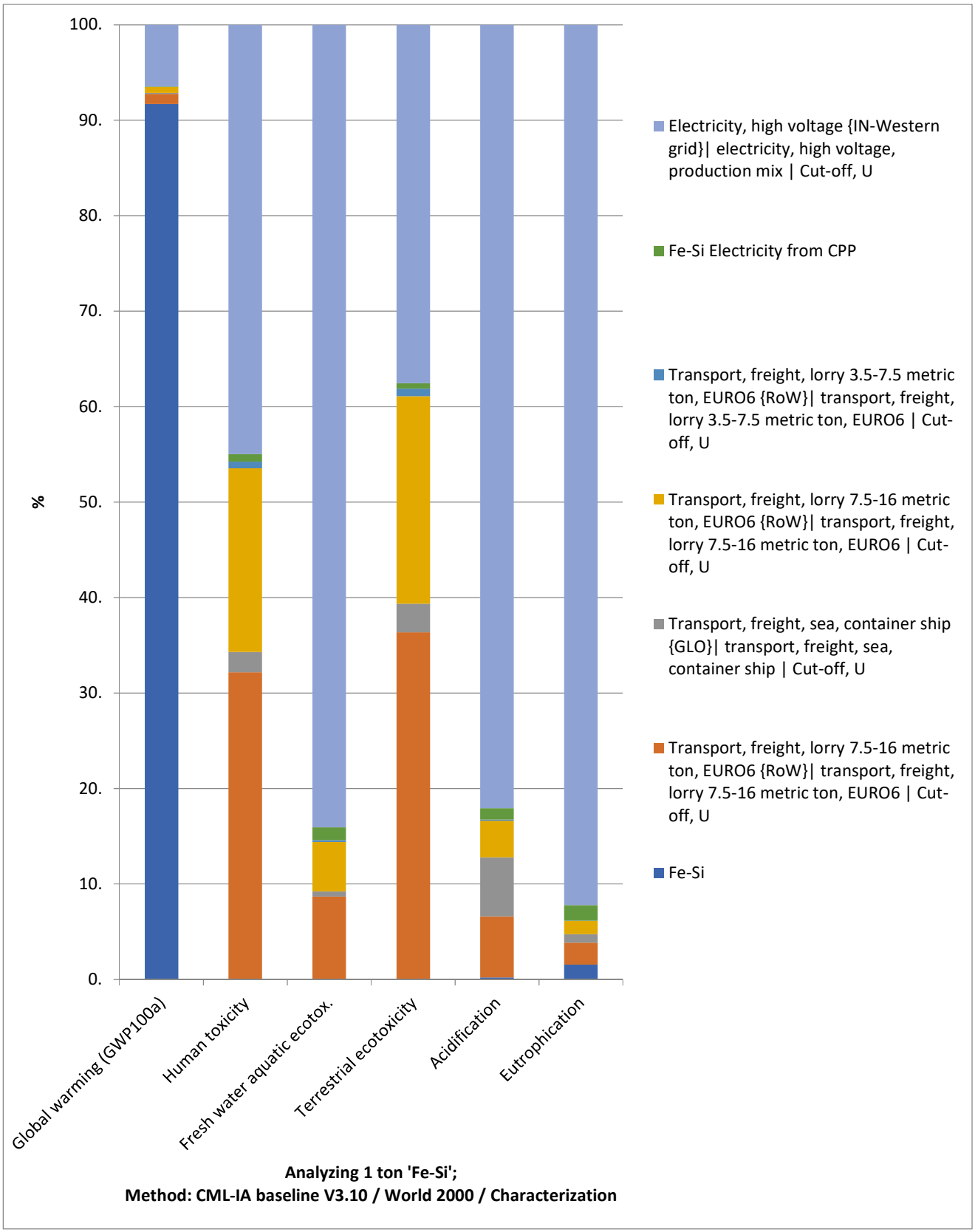


Table 5-12 LCIA Result of 1 ton of Product Fe-Si

Impact category	To be considered in scope (1,2 or 3)	Global warming potential (GWP 100a)	Human Toxicity	Fresh water aquatic ecotoxicity	Terrestrial ecotoxicity	Acidification	Eutrophication
Unit		kg CO_2 eq	kg 1,4-DB eq	kg 1,4-DB eq	Kg 1,4-DBeq	kg SO_2 eq	kg PO_4^{3-}eq
Fe-Si proposed case (Direct Emissions from fuel combustion)	1	17330.11	0.00	0.00	0.00	0.01	0.07
Transport Road (upstream) (tkm)	3	204.41	665.69	82.03	4.31	0.37	0.11
Transport Sea (upstream) (tkm)	3	15.29	43.97	4.94	0.36	0.36	0.04
Transport Road (downstream) (tkm)	3	122.11	397.67	49.00	2.58	0.22	0.06
Hazardous Waste Transport (downstream) (tkm)	3	3.68	14.58	1.80	0.09	0.01	0.00
Electricity from CPP (kWh)	3	7.54	16.33	12.78	0.07	0.07	0.08
Electricity from CSPDC (kWh) (Embodied energy of fuel)	2	1220.76	929.95	793.09	4.45	4.78	4.28
Total		**18903.90**	**2068.17**	**943.65**	**11.86**	**5.83**	**4.64**

Figure 5-11 Carbon footprint Emissions and classifications per for Life Cycle of 1ton of Fe-Si

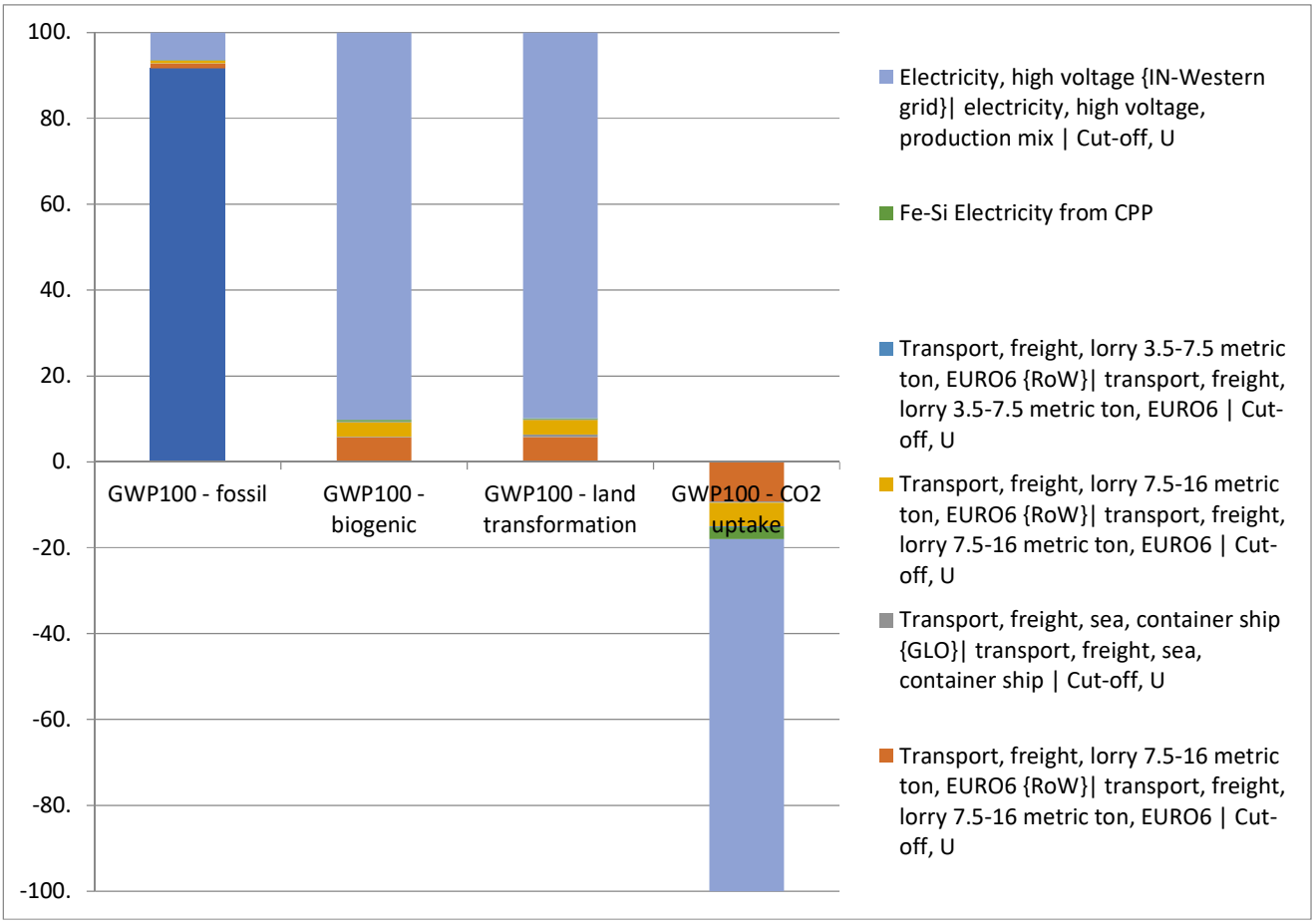


Table 5-13 Scoping of Fe-Si for 1 ton

Scoping	Emissions in $kgCO_2eq$	Percent contribution	Contributing Parameter
Scope 1	17330.11	91.7%	Reject Coal/ Coal fuel combustion direct emissions for the generation of electricity & Process Emission
Scope 2	1220.76	6.5%	Purchased Electricity from Grid supply
Scope 3	353.03	1.9%	Reject Coal/ Coal embodied energy, Upstream and Downstream Transportation.
Total	**18903.90**	**100%**	

Interpretation of Results:

The major contributors to the overall GWP are:

1. Direct emissions from Coal/ Rejected Coal combustion releases a major source of carbon dioxide (CO2) emissions, a greenhouse gas that contributes to global warming and climate change. Additionally, it releases various air pollutants such as sulfur dioxide (SO2), nitrogen oxides (NOx), particulate matter (PM), and mercury (Hg). These pollutants contribute to smog formation, acid rain, respiratory issues, and ecosystem damage.

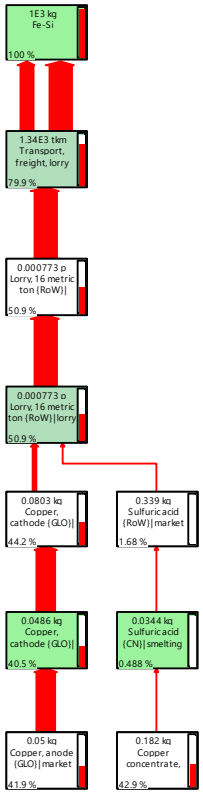
2. Electricity from Grid: In 2020, India's electricity generation produced 41.7% more greenhouse gases compared to the global average. This is largely due to the fact that 77% of the country's electricity is derived from fossil fuels. Coal-based power generation alone contributes to 40% of India's total greenhouse gas emissions. The process of power generation, particularly from coal, can release hazardous metals and pollutants into water bodies. For example, coal ash, which is disposed of in millions of tons each year, can contain dangerous contaminants such as mercury, cadmium, and arsenic. Additionally, the construction and upkeep of transmission lines can have detrimental effects on the environment. These activities can lead to the destruction of plant and animal life and disrupt natural habitats.

3. Transportation: Due to the large quantity of raw materials, transportation emissions are high. The combustion of fossil fuels in vehicles, such as gasoline and diesel, releases carbon dioxide (CO_2) and other greenhouse gases (GHGs) into the atmosphere, contributing to global warming and climate change. Additionally, transportation constitutes a substantial portion of global energy consumption, mainly derived from fossil fuels.

Table 5-14: Product Life Cycle Stage Wise Results of Fe-Si

Sr. No.	Life Cycle Stages	Global warming (GWP100a)	Human toxicity	Freshwater aquatic ecotox.	Terrestrial ecotoxicity	Acidification	Eutrophication
	Unit	**kg CO_2 eq**	**kg 1,4-DB eq**	**kg 1,4-DB eq**	**kg 1,4-DB eq**	**kg SO2 eq**	**kg PO_4^{3-}eq**
Raw Material Processing & Raw Material Transport							
1	Raw material– Transport	204.41	665.69	82.03	4.31	0.37	0.11
2	Raw material– Transport by sea	15.29	43.97	4.94	0.36	0.36	0.04
3	Reject Coal/ Coal Embodied Energy	7.54	16.33	12.78	0.07	0.07	0.08
Manufacturing Process							
4	Reject Coal/ Coal combustion for the generation of electricity & Process Emission	17330.11	0.00	0.00	0.00	0.01	0.07
5	Electricity from Supply Grid	1220.76	929.95	793.09	4.45	4.78	4.28
Downstream Transportation							
6	Product - Downstream Transportation by Road	122.11	397.67	49.00	2.58	0.22	0.06
7	Hazardous Waste Transportation by Road	3.68	14.58	1.80	0.09	0.01	0.002

Figure 5-12 Process Flow for Fe-Si in SimaPro



5.2.4 Pig Iron

The total production capacity is 28,500 ton/Annum.

Table 5-15 Mass Balance of the Product Pig Iron Manufacturing Process

	Mass flow	Input in MT				Output	MT
Mass Flow	Coal	1.05	→	Formation of Product Pig Iron proposed case	→	Pig iron	**1**
	Rejected Coal	3.14	→		→	Carbon dioxide(kg)	5377.03
			→		→	Methane(kg)	0.57
Non-Mass Flow	Electricity from CPP (kWh)	2200.00	→		→	Nitrous Oxide(kg)	0.09
	Electricity from CSPDC (kWh)	300	→				
	Transport Road (upstream) (tkm)	410.1	→				
	Transport Sea (upstream) (tkm)	875	→				
	Transport (downstream) (tkm)	500	→				
	Hazardous (downstream) (tkm)	65	→				

Figure 5-13 Impact categories of life cycle of 1ton of Pig Iron

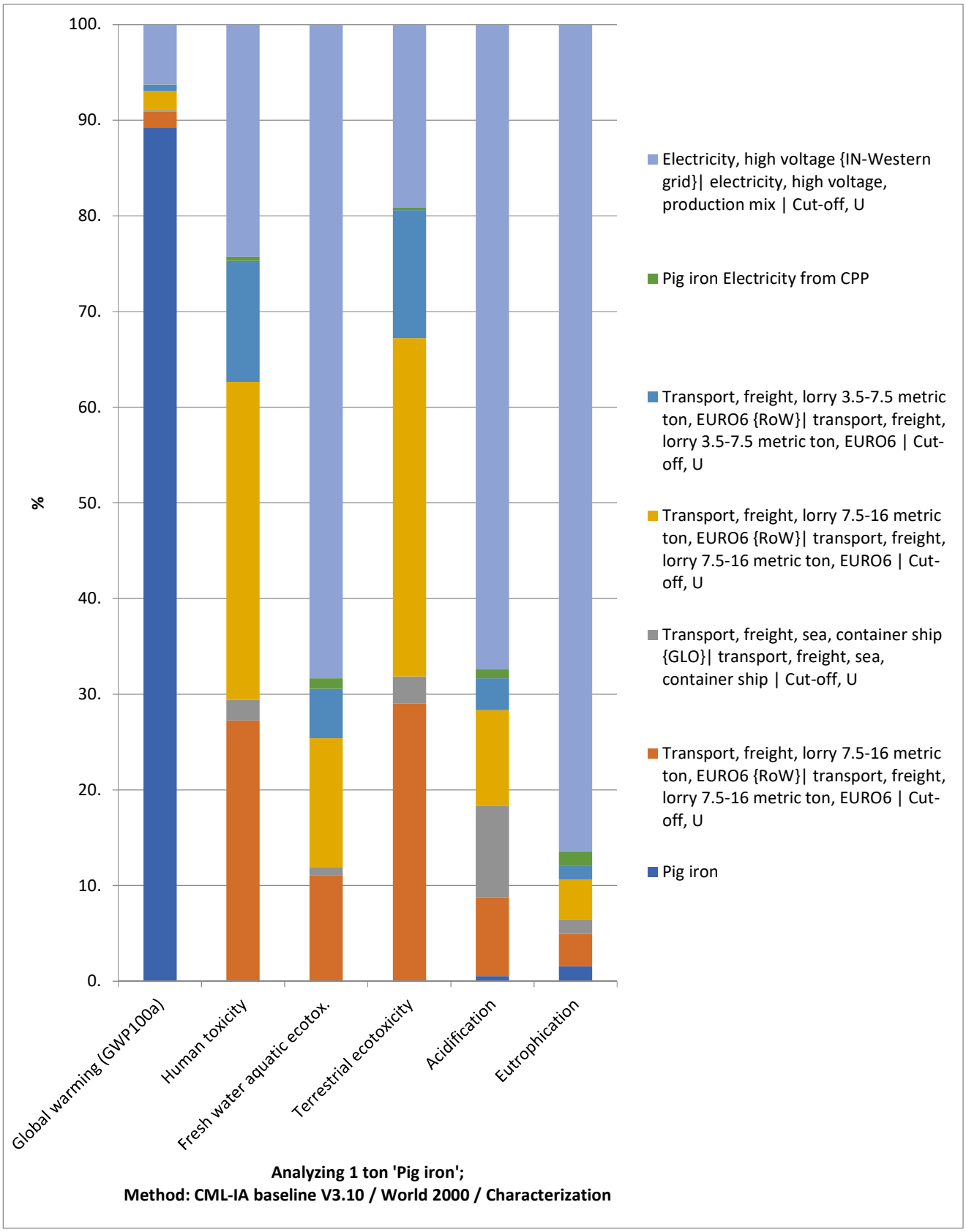


Table 5-16 LCIA Result of 1 ton of Product Pig Iron

Impact category	To be considered in scope (1,2 or 3)	Global warming potential (GWP 100a)	Human Toxicity	Fresh water aquatic ecotoxicity	Terrestrial ecotoxicity	Acidification	Eutrophication
Unit		kg CO_2 eq	kg 1,4-DB eq	kg 1,4-DB eq	Kg 1,4-DBeq	kg SO_2 eq	kg PO_4^{3-}eq
Pig Iron proposed case (Direct Emissions from fuel combustion)	1	5417.23	0.00	0.00	0.00	0.01	0.02
Transport Road (upstream) (tkm)	3	100.15	326.16	40.19	2.11	0.18	0.05
Transport Sea (upstream) (tkm)	3	8.92	25.65	2.88	0.21	0.21	0.02
Transport (downstream) (tkm)	3	122.11	397.67	49.00	2.58	0.22	0.06
Hazardous (downstream) (tkm)	3	38.29	151.58	18.74	0.98	0.07	0.02
Electricity from CPP (kWh)	3	2.36	5.12	4.01	0.02	0.02	0.02
Electricity from CSPDC (kWh) (Embodied energy of fuel)	2	381.49	290.61	247.84	1.39	1.49	1.34
Total		**6070.55**	**1196.79**	**362.67**	**7.29**	**2.22**	**1.55**

Figure 5-14 Carbon footprint Emissions and classifications per for Life Cycle of 1ton of Pig Iron

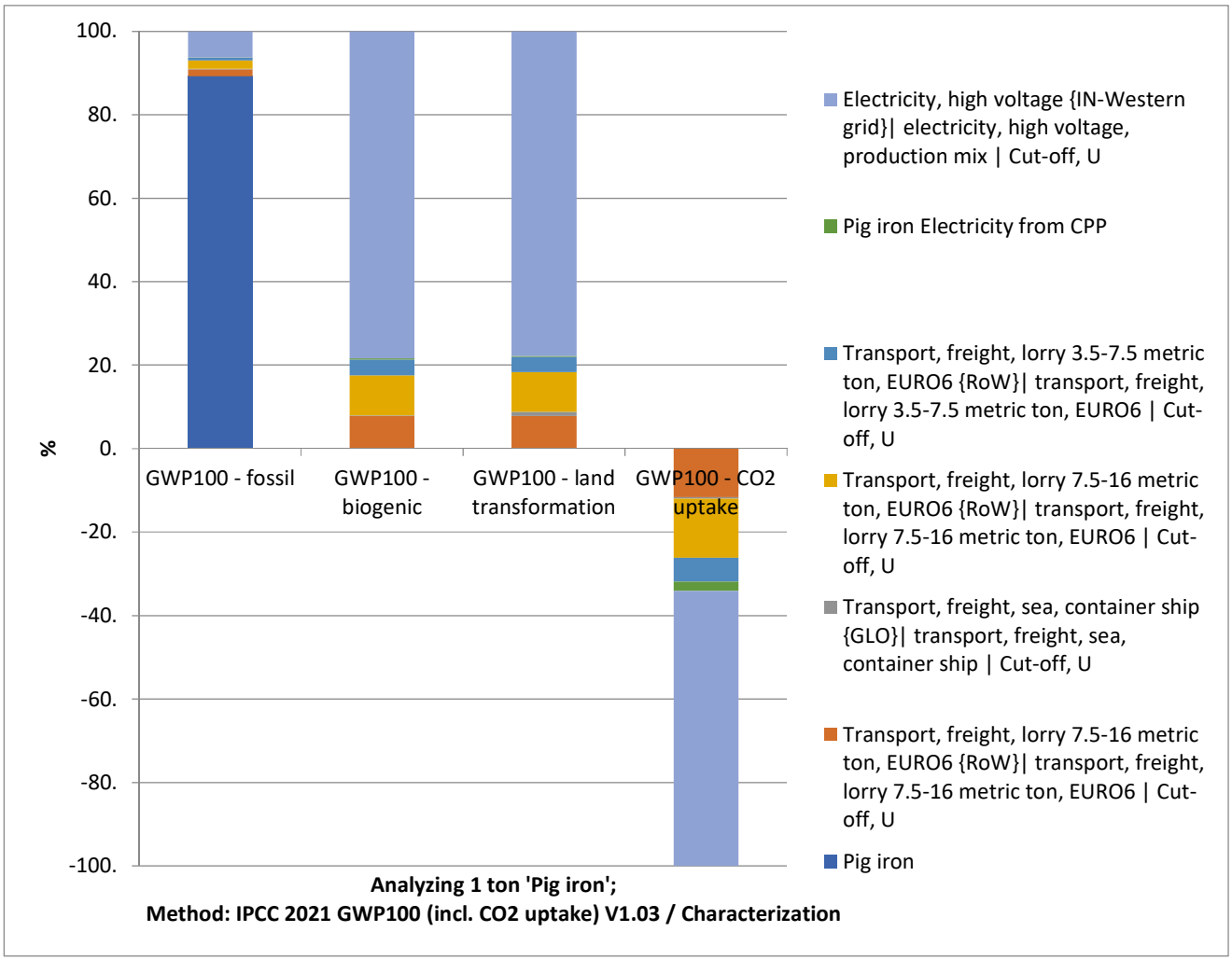


Table 5-17 Scoping of Pig Iron for 1ton

Scoping	Emissions in $kgCO_2eq$	Percent contribution (%)	Contributing Parameter
Scope 1	5417.23	89.2%	Reject Coal/ Coal fuel combustion direct emissions for the generation of electricity & Process Emission
Scope 2	381.49	6.3%	Purchased Electricity from Grid supply
Scope 3	271.83	4.5%	Reject Coal/ Coal embodied energy, Upstream and Downstream Transportation.
Total	**6070.55**	**100%**	

Interpretation of Results:

The major contributors to the overall GWP are:

1. Direct emissions from Coal/ Rejected Coal combustion releases a major source of carbon dioxide (CO2) emissions, a greenhouse gas that contributes to global warming and climate change. Additionally, it releases various air pollutants such as sulfur dioxide (SO2), nitrogen oxides (NOx), particulate matter (PM), and mercury (Hg). These pollutants contribute to smog formation, acid rain, respiratory issues, and ecosystem damage..

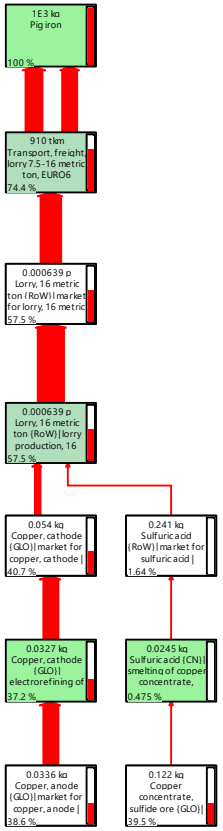
2. Electricity from Grid: In 2020, India's electricity generation produced 41.7% more greenhouse gases compared to the global average. This is largely due to the fact that 77% of the country's electricity is derived from fossil fuels. Coal-based power generation alone contributes to 40% of India's total greenhouse gas emissions. The process of power generation, particularly from coal, can release hazardous metals and pollutants into water bodies. For example, coal ash, which is disposed of in millions of tons each year, can contain dangerous contaminants such as mercury, cadmium, and arsenic. Additionally, the construction and upkeep of transmission lines can have detrimental effects on the environment. These activities can lead to the destruction of plant and animal life and disrupt natural habitats.

3. Transportation: Due to the large quantity of raw materials, transportation emissions are high. The combustion of fossil fuels in vehicles, such as gasoline and diesel, releases carbon dioxide (CO_2) and other greenhouse gases (GHGs) into the atmosphere, contributing to global warming and climate change. Additionally, transportation constitutes a substantial portion of global energy consumption, mainly derived from fossil fuels.

Table 5-18: Product Life Cycle Stage Wise Results of Pig Iron

Sr. No.	Life Cycle Stages	Global warming (GWP100a)	Human toxicity	Freshwater aquatic ecotox.	Terrestrial ecotoxicity	Acidification	Eutrophication
	Unit	kg CO_2 eq	kg 1,4-DB eq	kg 1,4-DB eq	kg 1,4-DB eq	kg SO2 eq	kg PO_4^{3-} eq
Raw Material Processing & Raw Material Transport							
1	Raw material– Transport	100.15	326.16	40.19	2.11	0.18	0.05
2	Raw material– Transport by sea	8.92	25.65	2.88	0.21	0.21	0.02
3	Reject Coal/ Coal Embodied Energy	2.36	5.12	4.01	0.02	0.02	0.02
Manufacturing Process							
4	Reject Coal/ Coal combustion for the generation of electricity & Process Emission	5417.23	0.00	0.00	0.00	0.01	0.02
5	Electricity from Supply Grid	381.49	290.61	247.84	1.39	1.49	1.34
Downstream Transportation							
6	Product - Downstream Transportation by Road	122.11	397.67	49.00	2.58	0.22	0.06
7	Hazardous Waste Transportation by Road	38.29	151.58	18.74	0.98	0.07	0.02

Figure 5-15 Process Flow for Pig Iron in SimaPro



5.2.5 Ferro Alloys (SiMn/FeMn)

The total production capacity is 6,000 ton/Annum.

Table 5-19 Mass Balance of the Product Ferro Alloys (SiMn/FeMn) Manufacturing Process

	Mass flow	Input in MT				Output	MT
Mass Flow	Coal	1.14	→	Formation of Product Ferro alloys proposed case	→	Ferro alloys	**1**
	Rejected Coal	1.00	→		→	Carbon dioxide(kg)	3952.68
			→		→	Methane(kg)	0.42
Non-Mass Flow	Electricity from CPP (kWh)	704.00	→		→	Nitrous Oxide(kg)	0.06
	Electricity from CSPDC (kWh)	96	→				
	Transport (upstream) (tkm)	1.03	→				
	Transport (downstream) (tkm)	500	→				
	Hazardous (downstream) (tkm)	0	→				

Figure 5-16 Impact categories of life cycle of 1ton of Ferro Alloys (SiMn/FeMn)

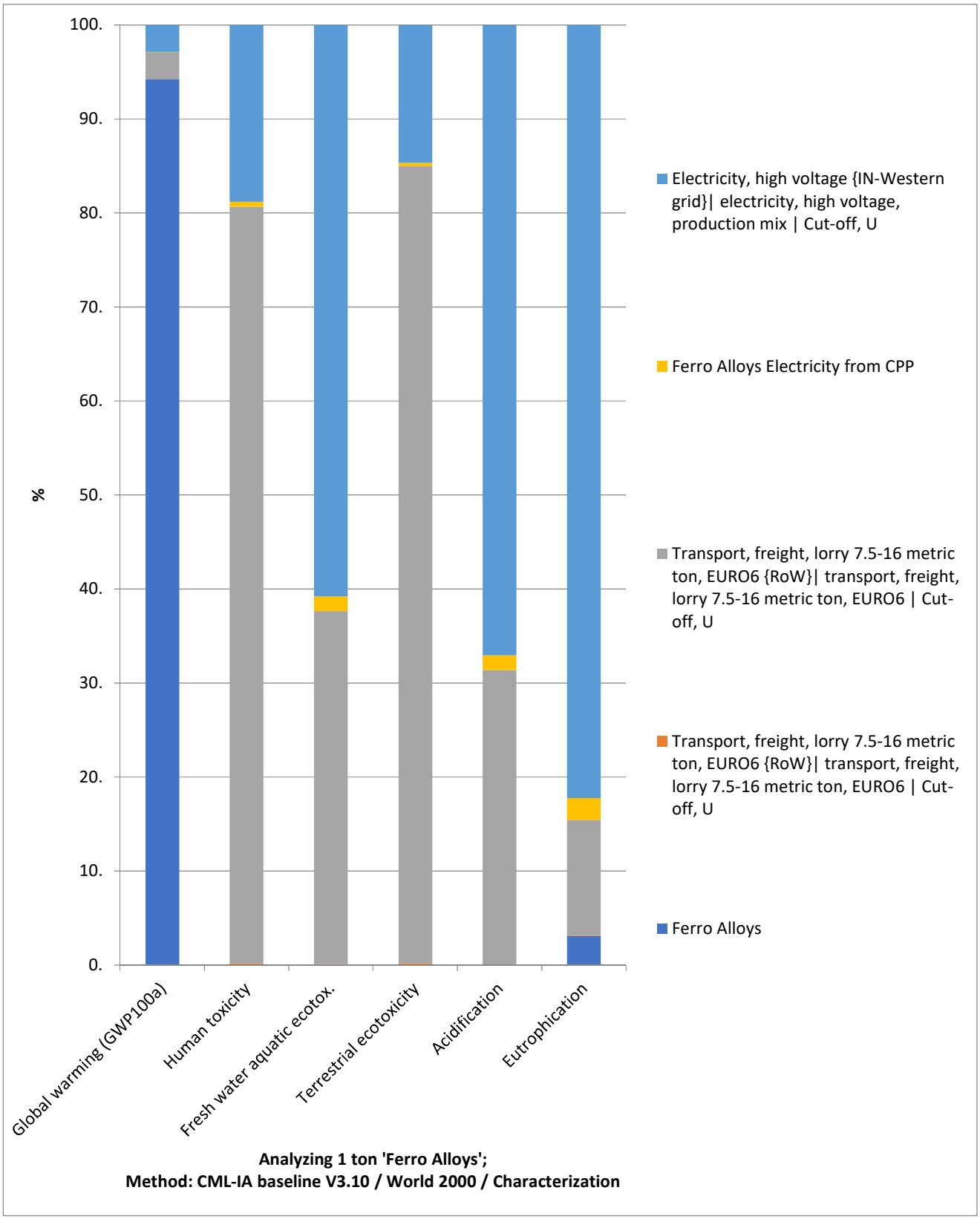


Table 5-20 LCIA Result of 1 ton of Product Ferro Alloys (SiMn/FeMn)

Impact category	To be considered in scope (1,2 or 3)	Global warming potential (GWP 100a)	Human Toxicity	Fresh water aquatic ecotoxicity	Terrestrial ecotoxicity	Acidification	Eutrophication
Unit		kg CO_2 eq	kg 1,4-DB eq	kg 1,4-DB eq	Kg 1,4-DBeq	kg SO_2 eq	kg PO_4^{3-}eq
Ferro Alloys (SiMn/FeMn) proposed case (Direct Emissions from fuel combustion)	1	3.98E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.62E-02
Transport Road (upstream) (tkm)	3	2.52E-01	8.19E-01	1.01E-01	5.31E-03	4.60E-04	1.32E-04
Transport Road (downstream) (tkm)	3	1.22E+02	3.98E+02	4.90E+01	2.58E+00	2.23E-01	6.39E-02
Electricity from CPP (kWh)	3	1.21E+00	2.61E+00	2.05E+00	1.10E-02	1.12E-02	1.21E-02
Electricity from CSPDC (kWh) (Embodied energy of fuel)	2	1.22E+02	9.30E+01	7.93E+01	4.45E-01	4.78E-01	4.28E-01
Total		**4225.98**	**494.09**	**130.46**	**3.04**	**0.71**	**0.52**

Figure 5-17 Carbon footprint Emissions and classifications per for Life Cycle of 1ton of Ferro Alloys (SiMn/FeMn)

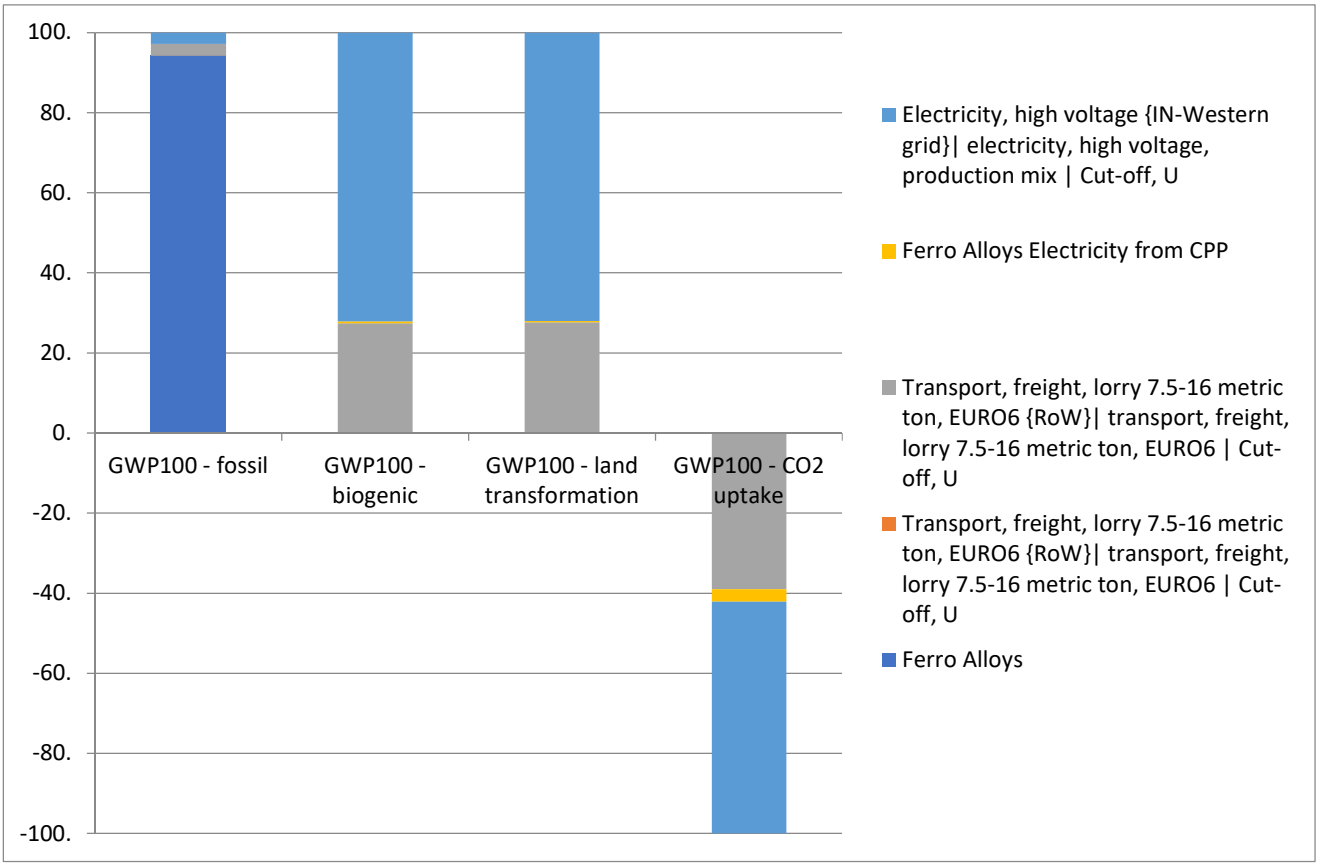


Table 5-21 Scoping of Ferro Alloys (SiMn/FeMn) for 1 ton

Scoping	Emissions in $kgCO_2eq$	Percent contribution	Contributing Parameter
Scope 1	3980.34	94.19%	Reject Coal/ Coal fuel combustion direct emissions for the generation of electricity & Process Emission
Scope 2	122.08	2.89%	Purchased Electricity from Grid supply
Scope 3	123.56	2.92%	Reject Coal/ Coal embodied energy, Upstream and Downstream Transportation.
Total	**4225.98**	**100%**	

Interpretation of Results:

The major contributors to the overall GWP are:

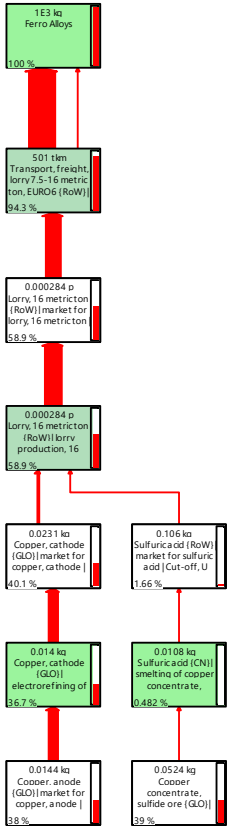
1. Direct emissions from Coal/ Rejected Coal combustion releases a major source of carbon dioxide (CO2) emissions, a greenhouse gas that contributes to global warming and climate change. Additionally, it releases various air pollutants such as sulfur dioxide (SO2), nitrogen oxides (NOx), particulate matter (PM), and mercury (Hg). These pollutants contribute to smog formation, acid rain, respiratory issues, and ecosystem damage.
2. Transportation: Due to the large quantity of raw materials, transportation emissions are high. The combustion of fossil fuels in vehicles, such as gasoline and diesel, releases carbon dioxide (CO2) and other greenhouse gases (GHGs) into the atmosphere, contributing to global warming and climate change. Additionally, transportation constitutes a substantial portion of global energy consumption, mainly derived from fossil fuels

3. Electricity from Grid: In 2020, India's electricity generation produced 41.7% more greenhouse gases compared to the global average. This is largely due to the fact that 77% of the country's electricity is derived from fossil fuels. Coal-based power generation alone contributes to 40% of India's total greenhouse gas emissions. The process of power generation, particularly from coal, can release hazardous metals and pollutants into water bodies. For example, coal ash, which is disposed of in millions of tons each year, can contain dangerous contaminants such as mercury, cadmium, and arsenic. Additionally, the construction and upkeep of transmission lines can have detrimental effects on the environment. These activities can lead to the destruction of plant and animal life and disrupt natural habitats.

Table 5-22: Product Life Cycle Stage Wise Results of Ferro Alloys (SiMn/FeMn)

Sr. No.	Life Cycle Stages	Global warming (GWP100a)	Human toxicity	Freshwater aquatic ecotox.	Terrestrial ecotoxicity	Acidification	Eutrophication
	Unit	**kg CO_2 eq**	**kg 1,4-DB eq**	**kg 1,4-DB eq**	**kg 1,4-DB eq**	**kg SO2 eq**	**kg PO_4^{3-}eq**
Raw Material Processing & Raw Material Transport							
1	Raw material– Transport	0.25	0.82	0.10	0.01	0.00	0.00
2	Reject Coal/ Coal Embodied Energy	1.21	2.61	2.05	0.01	0.01	0.01
Manufacturing Process							
3	Reject Coal/ Coal combustion for the generation of electricity & Process Emission	3980.34	0.00	0.00	0.00	0.00	0.02
4	Electricity from Supply Grid	122.08	92.99	79.31	0.45	0.48	0.43
Downstream Transportation							
5	Product - Downstream Transportation by Road	122.11	397.67	49.00	2.58	0.22	0.06

Figure 5-18 Process Flow for Pig Iron in Ferro Alloys (SiMn/FeMn)



6 Hotspot Analysis

6.1 Hotspot Analysis

Hotspot analysis is conducted subsequent to performing Life Cycle Assessment (LCA) on products, considering their environmental impact stemming from raw material embodied carbon, manufacturing processes, and waste generation.

The resulting output serves to pinpoint potential solutions and prioritize actions, particularly focusing on the most substantial economic, environmental, governance, ethical, and social sustainability impacts or benefits linked to the product.

This analysis helps identify key areas requiring urgent interventions or improvements, enabling a focused and efficient strategy to improve overall sustainability performance. By focusing on critical areas highlighted in the hotspot analysis, organizations can make informed decisions to maximize positive impacts and reduce negative ones, thereby promoting a more sustainable and responsible product.

The hotspot analysis can be utilized as follows:

i. Prioritize key issues such as waste, water, and materials of concern.
ii. Direct focus to the appropriate life cycle stage, including material acquisition, manufacturing, use, and end of life.
iii. Target the relevant stakeholders such as producers, manufacturers, suppliers, retailers, and customers to evaluate, influence, and implement solutions.
iv. Understand the implications of trade-offs effectively.
v. Allocate resources like time and money efficiently to actions.

The hotspot analysis of the products are as follows:

Table 6-1 Hotspot Analysis

Sr. No.	Product	LCIA Normalised Highest impact	Hotspot activities or materials
1	Si-Mn	1. Human Toxicity 2. Fresh Water aquatic Ecotoxicity 3. Global Warming Potential	1. Upstream Transportation 2. Process emissions 3. Electricity from Grid
2	Fe-Mn	1. Human Toxicity 2. Fresh Water aquatic Ecotoxicity 3. Global Warming Potential	1. Upstream Transportation 2. Process emissions 3. Electricity from Grid
3	Fe-Si	1. Human toxicity 2. Global Warming Potential. 3. Fresh water aquatic ecotox.	1. Electricity from Grid 2. Process emissions 3. Upstream Transportation
4	Pig Iron	1. Human toxicity 2. Global Warming Potential. 3. Fresh water aquatic ecotox.	1. Upstream Transportation 2. Process emissions 3. Electricity from Grid

7 Scoping of Proposed and Base Case

The proposed case, which incorporates electricity from CPP and Grid with mitigation measures, is compared to the base case where these measures are not applied. This comparison highlights the effectiveness of mitigation strategies in optimizing energy use and reducing potential impacts. In the proposed case, 50% of electricity is sourced from CPP and 50% from the Grid, with mitigation measures applied, while in the base case, electricity is sourced without considering any mitigation measures.

Table 7-1:Reduction in Scope wise Emissions of Si-Mn for1 ton

Emissions in $kgCO_2eq$	Scope 1	Scope 2	Scope 3	Total
Existing	11447.19	0.00	977.20	**8768.31**
Proposed Case	8232.39	579.86	892.45	**7072.72**
Percent Reduction (%)	28%		9%	**19%**
Contributing Parameter	Reject Coal/ Coal fuel combustion direct emissions for the generation of electricity & Process Emission y	Purchased Electricity from Grid supply	Reject Coal/ Coal embodied energy, Upstream and Downstream Transportation.	

Table 7-2:Reduction in Scope wise Emissions of Fe-Mn for1 ton

Emissions in $kgCO_2eq$	Scope 1	Scope 2	Scope 3	Total
Existing Case	8492.29	0.00	972.38	**5765.54**
Proposed Case	5633.22	396.75	871.24	**5193.81**
Percent Reduction (%)	34%		10%	**10%**
Contributing Parameter	Reject Coal/ Coal fuel combustion direct emissions for the generation of electricity & Process Emission y	Purchased Electricity from Grid supply	Reject Coal/ Coal embodied energy, Upstream and Downstream Transportation.	

8 Environmental Cost Benefit Analysis

8.1 Environmental Prices

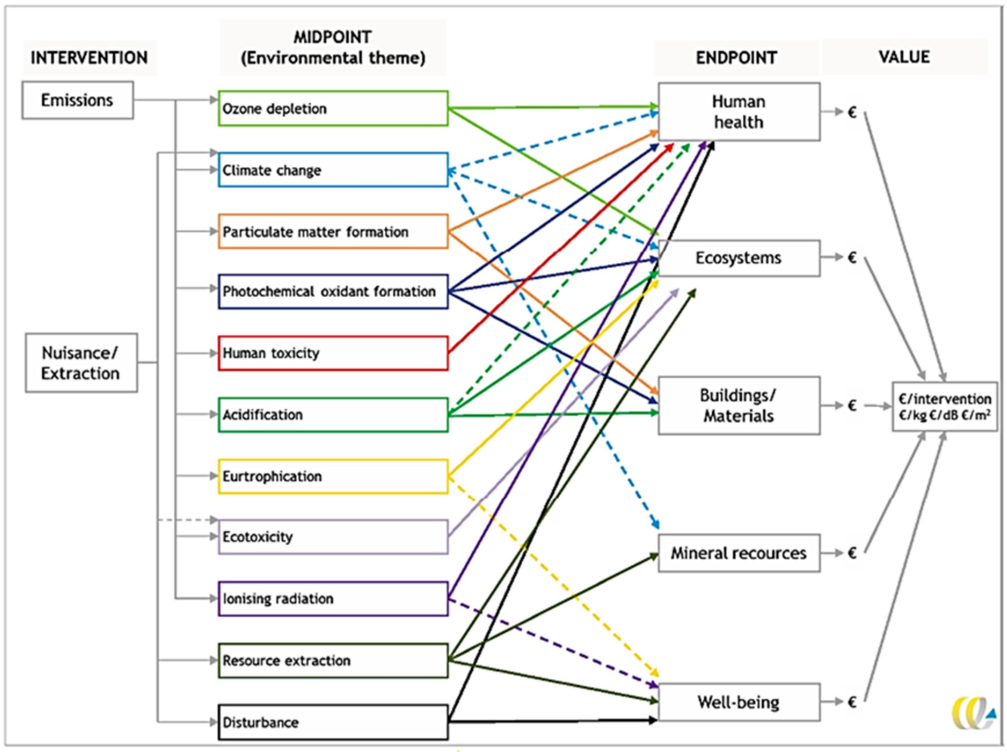
Environmental prices are indices expressing the willingness-to-pay for less environmental pollution in Euros per kilo pollutant. Environmental prices thus indicate the loss of economic welfare that occurs when one additional kilo of the pollutant enters the environment. In many cases they equal external costs. These prices can also be calculated for immaterial forms of pollution like noise nuisance and ionizing radiation, then being expressed in Euros per unit nuisance or exposure. Since a market for environmental quality is lacking, environmental prices cannot be observed directly, i.e. empirically, but must be calculated using the results of studies on human preferences for avoiding the impacts of pollution.

In the damage-cost approach an attempt is made to estimate the 'demand function' for environmental quality. This function hinges on how much people are prepared to pay for environmental quality: how much of their income they are willing to sacrifice for an additional unit of environmental quality. This is referred to as the willingness-to-pay (WTP). An alternative option is to consider how much people are prepared to pay to accept environmental damage: their willingness-to-accept (WTA). The concepts of WTP and WTA are thus both defined in terms of individual preference. Estimation of WTP can be approached in various ways, falling into two basic categories: – revealed preferences, emerging from the choices people actually make; – stated preferences, derived from questionnaires that measure people's WTP for maintaining or improving environmental quality. These methods have already been discussed in detail in the previous section.

Environmental Prices is a method developed by CE Delft for expressing environmental impacts in monetary terms. Environmental prices thus indicate the loss of economic welfare that occurs when one additional kilogram of the pollutant finds its way into the environment. Development of the Environmental Prices consisted of five steps:

- Updating monetary values of the endpoint categories on basis of literature, General SCBA Guidelines and Discount Rate Working Group;
- Updating the impact pathway analyses, which specify the relationship between emissions in the Netherlands and impacts on endpoints;
- Valuation of pollutants on basis of inputs from the previous steps and literature;
- Allocation of those pollutants to midpoint impact categories;
- Deriving weighted average value for damage to midpoint categories in order to calculate the damage cost for each substance characterised and midpoint damage factors.

Figure 8-1: Total Economic Framework Calculation



The environmental costs were converted to the national currency and adjusted for the inflation rate to the present year.

8.1.1 Conversion and adjustment for inflation and currency

€1 in 2015 is equivalent in purchasing power to about €1.20 today, an increase of €0.20 over 8 years. The euro had an average inflation rate of 2.30% per year between 2015 and today, producing a cumulative price increase of 19.98%.

This means that today's prices are 1.20 times as high as average prices since 2015, according to the European Central Bank consumer price index. A euro today only buys 83.33% of what it could buy back then. The inflation rate in 2015 was 0.03%. The current inflation rate compared to last year is now 0.14%. If this number holds, the rate of inflation is so negligible that €1 today will roughly maintain its value.

Conversion Euro to Rupees is 89.68 say Rs.90. Hence the conversion for Euro to Rupees with adjustment for inflation from 2015 is Rs. 108.

8.1.2 Comparative study on application in field

Material recovery, reuse, recycling and use of renewable energy are the mitigation measures considered. Hence by comparison and considering the reduction of impact the cost benefit analysis is worked out.

Based on the assumptions & mitigation measured the products were analysed for the base and proposed case. For the proposed base case the mitigation measures were considered whereas for the base case, it was excluded. The mitigation measures are as follows:

- The Electricity from CPP and Grid
- The Power Consumption Per ton of Product in Existing Case

Table 8-1 Benefits achieved through impact mitigation measures annually

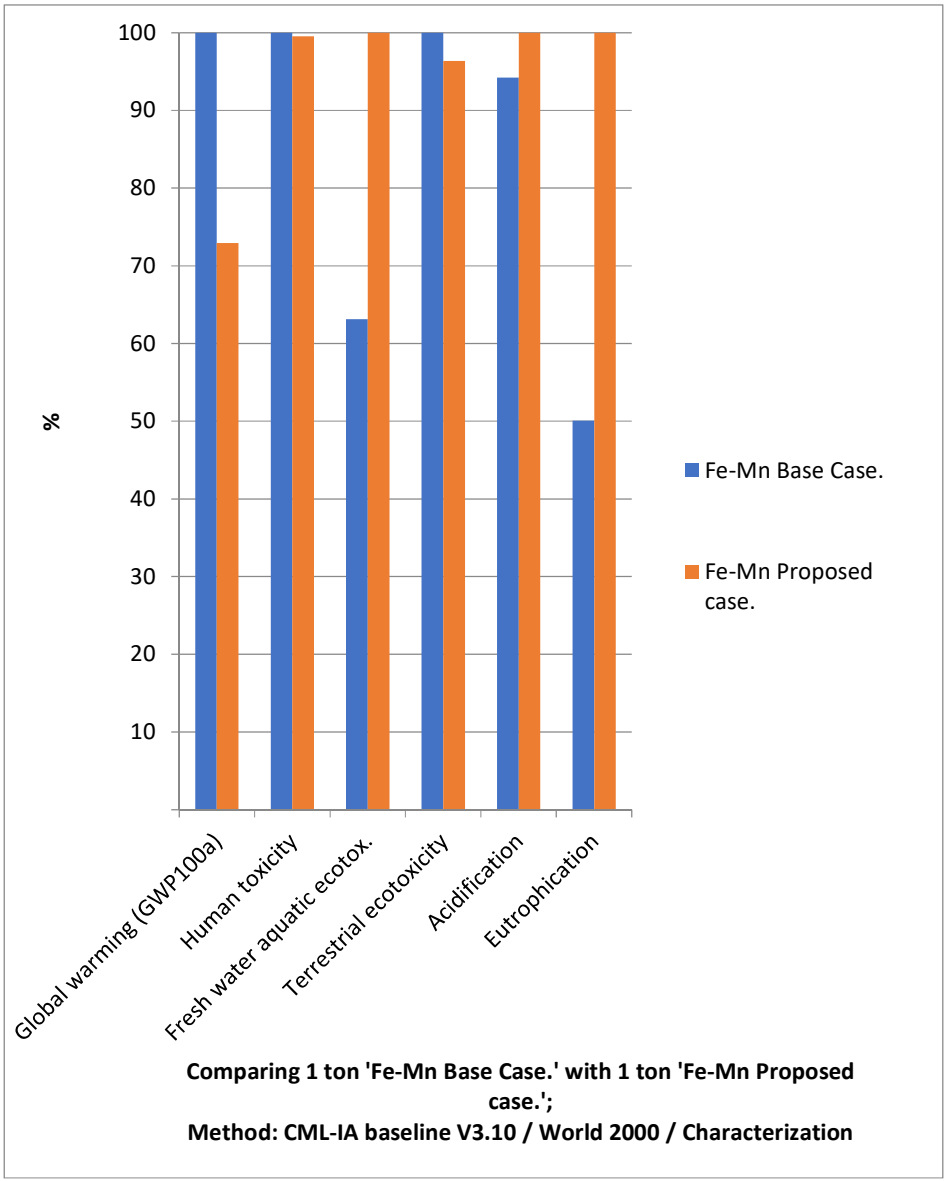
Sr. No.	Product	Global warming (GWP100a) kg CO_2eq	Total cost savings annually INR
	Values Euro/kg		0.06
	Values Rs/kg		6.11
1	Si-Mn	1695.59	10,360
2	Fe-Mn	571.73	3,493
Total		**2267.32**	**13,853**

It can be inferred from the above considerations and calculations that the pollution control and mitigation measures taken by the proponent will achieve the above cost benefit in terms of environmental impact abatement.

The above costs were ascertained based on the methodology green pricing for Indian specific scenario. The assumptions for the same are subjective and hence the pricing may differ from case study to case study basis.

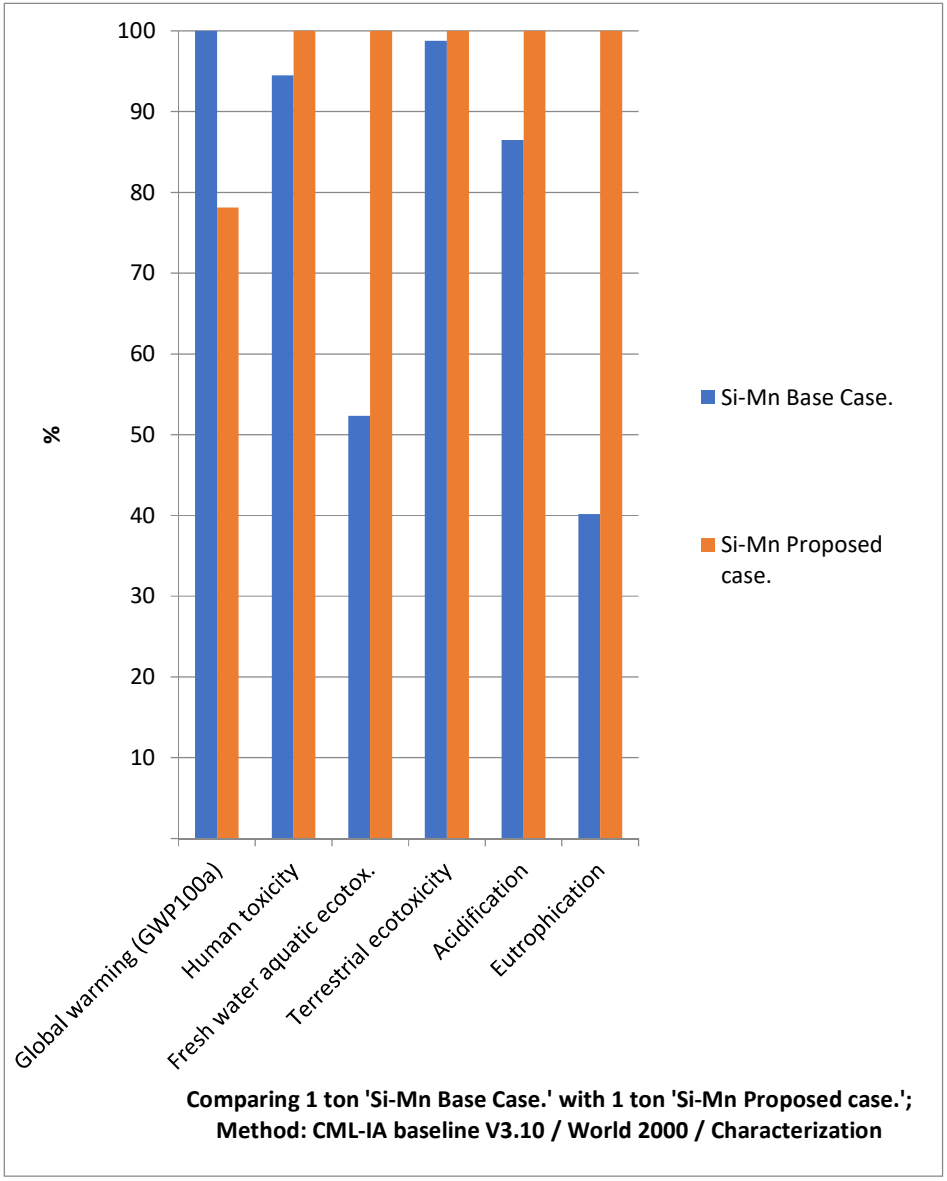
This cost saving indicates the benefits of application on the eco system and the environment considering the environmental costing achieved from the expenditure required in terms of health costs, pollution treatment costs, remediation costs, ecological damage costs, compensation costs and cost of remedial measures.

Figure 8-3 Comparative Fe-Mn Base case and Proposed case



Comparing 1 ton 'Fe-Mn Base Case.' with 1 ton 'Fe-Mn Proposed case.';
Method: CML-IA baseline V3.10 / World 2000 / Characterization

Figure 8-2 Comparative Si-Mn Base case and Proposed case



Comparing 1 ton 'Si-Mn Base Case.' with 1 ton 'Si-Mn Proposed case.';
Method: CML-IA baseline V3.10 / World 2000 / Characterization

8.1.3 Database

Environmental prices are indices expressing the willingness-to-pay for less environmental pollution in Euros per kilo pollutant. Environmental prices thus indicate the loss of economic welfare that occurs when one additional kilo of the pollutant enters the environment. In many cases they equal external costs. These prices can also be calculated for immaterial forms of pollution like noise nuisance and ionizing radiation, then being expressed in Euros per unit nuisance or exposure. Since a market for environmental quality is lacking, environmental prices cannot be observed directly, i.e. empirically, but must be calculated using the results of studies on human preferences for avoiding the impacts of pollution.

In the damage-cost approach an attempt is made to estimate the 'demand function' for environmental quality. This function hinges on how much people are prepared to pay for environmental quality: how much of their income they are willing to sacrifice for an additional unit of environmental quality. This is referred to as the willingness-to-pay (WTP). An alternative option is to consider how much people are prepared to pay to accept environmental damage: their willingness-to-accept (WTA). The concepts of WTP and WTA are thus both defined in terms of individual preference. Estimation of WTP can be approached in various ways, falling into two basic categories: – revealed preferences, emerging from the choices people actually make; – stated preferences, derived from questionnaires that measure people's WTP for maintaining or improving environmental quality. These methods have already been discussed in detail in the previous section.

The environmental costs were converted to the national currency and adjusted for the inflation rate to the present year.

8.1.4 Conclusion

A positive cost indicates benefit derived from the preferred option with mitigation measures over the base case. This cost saving indicates the benefits of application on the eco system and the environment considering the environmental costing achieved from the expenditure required in terms of health costs, pollution treatment costs, remediation costs, ecological damage costs, compensation costs and cost of remedial measures. So, application of mitigation measures over base case will save an environmental damage worth approximately **Rs. 13,853 for 2 products per ton.**

9 Mitigation Measure

9.1 Mitigation Measures

Following is the mitigation measures taken for reduction of GHG emissions**.**

1. Sequestration through plantation of 7647 No of trees

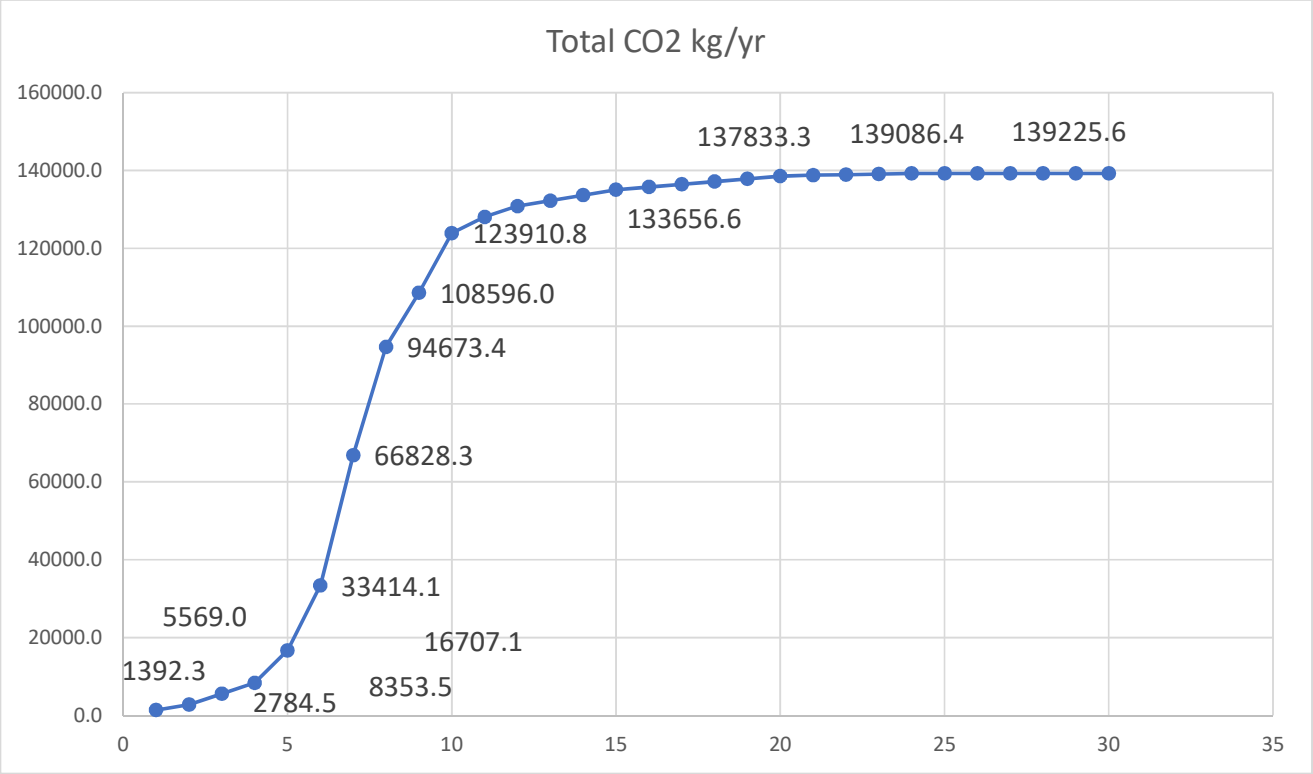
9.1.1 Annual Sequestration Calculations

As per the methodology of IISc Indian institute of Science Bangalore published by Springer in the book Carbon Inventory Methods (Authors: Rabindranath and Ostwald), the year wise carbon sequestration of each species is calculated. For the proposed trees, the year of plantation when the sequestration is negligible to 10 years of age (for average sequestration rate on full growth) the sequestration rate is calculated based on the methodology mentioned.

From 0 to 7-10 years the rate of sequestration per year goes on increasing with increase in biomass, for most of the species the rate of sequestration becomes stable after 10 years. The year-wise increase in height and girth for each species was considered from data published by FRI Dehradun and other Indian publications. For this existing tree data for similar species were collected, every individual plant diameter or girth at breast height (GBH) and height was measured. Wood density as per species was considered. The Above ground and below ground biomass were calculated, from which the carbon content was determined. Considering the age of the tree, annual amount of carbon dioxide sequestered was calculated for fully grown trees.

Similar methodology is followed in CPCB study of “Assessment of Carbon Sequestration Ability of Trees for Adopting in Green Belt of Cement Industries in Karnataka” “Carbon Inventory Methods” methodology: The height and girth at breast height (GBH) of tree are measured. Later, the parameters like Volume, Mass, Wood density, Above and Below ground biomass, Total biomass and Total carbon were calculated as per the standard methods given by Ravindranath and Ostwald. The wood density values were obtained for each of the tree species or in case density was not available, 0.6 was accepted as wood density. Wood density was also referred from data published by FRI.

Figure 9-1:Year Wise Carbon Savings due to carbon sequestration



- **Outside Plant Premise Tree List:**

Table 9-1: Annual Carbon Sequestration through Plantation at Muktidham - Birgoav

Sr. No.	Trees		Qty	CO_2	CO_2	Total CO_2
	Botanical Name	Common Name	No.	kg	kg/ yr	kg/yr
1	*Conocarpus lancifolius*	Conocarpus	200	219.74	21.97	4394.84
2	*Ficus religiosa*	Pipal	5	276.31	27.63	138.16
3	*Terminalia catappa*	Badam	25	219.74	21.97	549.35
4	*Dalbergia sissoo*	Shisam	200	105.95	10.59	2118.94
5	*Bauhinia variegata*	Kachanar	100	219.74	21.97	2197.42
6	*Annona squamosa*	Shitaphal	200	10.46	1.05	209.28
7	*Neolamarckia cadamba*	Kadam	200	257.89	25.79	5157.83
8	*Samanea saman*	Rain Tree	300	251.13	25.11	7534.01
9	*Cassia fistula*	Keshiya Shamiya	200	141.70	14.17	2833.97
10	*Peltophorum pterocarpum*	Pelta Form	200	219.74	21.97	4394.84
11	*Psidium guajava*	Guava	200	88.29	8.83	1765.78
12	*Java plum*	Black Berry	100	257.89	25.79	2578.92
13	*Phyllanthus emblica*	Emblika	200	130.80	13.08	2615.98
Total			**2130**			**36489.32**

Table 9-2: Annual Carbon Sequestration through Plantation inside Plant Premises

Sr. No.	Trees		Qty	CO_2	CO_2	Total CO_2
	Botanical Name	Common Name	No.	kg	kg/ yr	kg/yr
1	*Conocarpus lancifolius*	Conocarpus	401	219.74	21.97	8811.65
2	*Delonix regia*	Gulmohar	50	276.31	27.63	1381.56
3	*Azadirachta indica*	Neem	50	219.74	21.97	1098.71
4	*Ficus benghalensis*	Bargat	7	390.65	39.07	273.46
5	*Ficus religiosa*	Pipal	30	276.31	27.63	828.94
6	*Millettia pinnata*	Karanj	30	219.74	21.97	659.23
7	*Cocos nucifera*	Nariyal	3	294.73	29.47	88.42
8	*Syzygium cumini*	Jamun	30	276.31	27.63	828.94
9	*Terminalia catappa*	Badam	20	219.74	21.97	439.48
10	*Alstonia scholaris*	Chatim	177	158.27	15.83	2801.32
11	*Acalypha wilkesiana*	Aclifa	160	5.23	0.52	83.71
13	*Mimusops elengi*	Maulsari	85	35.32	3.53	300.18
14	*Aegle marmelos*	Bogan Bel	24	69.76	6.98	167.42
15	*Pithecellobium dulce*	Gangaimali	20	130.80	13.08	261.60
16	*Saraca asoca*	Ashok	25	219.74	21.97	549.35
17	*Dalbergia sissoo*	Shisam	35	105.95	10.59	370.81
18	*Bauhinia variegata*	Kachanar	26	219.74	21.97	571.33
19	*Mangifera indica*	Aam	50	235.44	23.54	1177.19
20	*Ixora coccinea*	Exora	31	21.80	2.18	67.58
21	*Nerium oleander*	Kaner	25	27.47	2.75	68.67
22	*Thuja occidentalis*	Vidya	72	214.38	21.44	1543.51
23	*Moringa oleifera*	Munga	25	276.31	27.63	690.78
24	*Annona squamosa*	Shitaphal	30	10.46	1.05	31.39
25	*Leucaena leucocephala*	Subabul	85	158.27	15.83	1345.27
26	*Neolamarckia cadamba*	Kadam	26	257.89	25.79	670.52
Total			**1517**			**25111.02**

Table 9-3: Annual Carbon Sequestration through Plantation at Urkura - Govt. Land

Sr. No.	Trees		Qty	CO_2	CO_2	Total CO_2
	Botanical Name	**Common Name**	**No.**	**kg**	**kg/ yr**	**kg/yr**
1	*Conocarpus lancifolius*	Conocarpus	800	184.64	18.46	28619.87
2	*Delonix regia*	Gulmohar	500	276.31	27.63	19701.08
3	*Azadirachta indica*	Neem	300	219.74	21.97	9558.78
4	*Ficus religiosa*	Pipal	100	390.65	39.07	9766.31
5	*Mimusops elengi*	Maulsari	300	276.31	27.63	2901.28
6	*Aegle marmelos*	Bogan Bel	600	219.74	21.97	549.35
7	*Bauhinia variegata*	Kachanar	400	294.73	29.47	736.83
8	*Terminalia arjuna*	Arjuna	200	276.31	27.63	4282.84
9	*Albizia lebbeck*	Siris	200	219.74	21.97	1318.45
10	*Great bougainvillea*	Kagaj Phool	400	130.80	13.08	156.96
11	*Caesalpinia crista*	Gataran	200	5.23	0.52	33.48
Total			**4000**			**77625.24**

10 Reference

- ✓ *LCA Software- SimaPro 9.6*
- ✓ *Databases – Ecoinvent 3.10 V*
- ✓ *GHG Protocol Manuals - Product Inventory*
- ✓ *Environmental Prices CE Delft*
- ✓ *The Economics of Ecosystems and Biodiveristy, UNEP*
- ✓ *Contingent Valuation: A Comprehensive Bibliography and History. Cheltenham: Edward Elgar*
- ✓ *https://usetox.org/*

Annexure V: CEPI areas compliance

STATUS OF CONDITIONS STIPULATED IN **MITIGATION MEASURES ISSUED VIDES LTR. 8175/HO/CGCECB/2019 DATED 17.12.2019** BY CHHATTISGARH ENVIRONMENT CONSERVATION BOARD NAWA RAIPUR CHHATTISGARH ON BEHALF OF **ALOK FERRO ALLOYS LIMITED**, PLOT NO. 458/1, 459/1, URLA INDUSTRIAL AREA, URLA RAIPUR CHHATTISGARH.

Enclosure_2

	STIPULATED CONDITIONS	CLARIFICATION
AIR POLLUTION CONTROL		
(1)	CECB has already stringent particulate matter emission limit to 50 mg/Nm³. However, units shall adhere to stringent air pollutants standards i.e. 60% of existing flue gas and process emission standards. Particulate matter emission limit may be prescribed as 30 mg/Nm³ for new and expansion / diversification activities.	**In Ferro Alloys Division:** After Expansion of production capacity of Existing Ferro Alloys Unit, we ensure that AFAL will maintain all pollution stack emission below 30 mg/Nm³. Adequate number of Pollution Control devices has been installed. **In Power Plant :** As per granted Consent to operate, ESP is attached with AFBC to restrict PM emission up to 50 mg/Nm3. It will Remain same. Because No any expansion is proposed in Power Plant.
	For expansion or diversification activity, the pollution load shall not exceed the existing load for which consent has been granted. If any industrial group has another unit(s) in the critically polluted area, then reduction in pollution load form both units together may be considered. The raw materials, solid fuels, products (which have tendency to generate dust while handling / transportation) and solid wastes shall be stored in covered shed with arrangement of water sprinkling / dust suppression systems.	Photographs of pollution Control system is enclosed as **Enclosure 2 (a).** **<u>Pollution Load :</u>** Pollution Load shall not be increases after enhancement of the production capacity. Because we are increasing ferro alloys production **by "Forward integration using high-grade Mn ore and other raw material"** resulting smelting rate and hourly basis production shall be increases without Change in production load. Moreover reduction rate will augments. Hence no additional pollution will increase. Details pollution load calculation is enclosed as **Enclosure 2 (b).** We have constructed a storage shed with pucca plate for storing raw materials, solid waste and products.

ALOK FERRO ALLOYS LTD. RAIPUR (C.G.) HIRA

		Generated solid waste is partially utilized in plant for construction activities and land filling and remaining is being sold out to other manufacturers. And for controlling of Heavy fugitive dust stationary and moving water sprinkler have been installed at designated places inside overall plant premises. Move over water is sprinkled on inside road & outside plant road through water tanker.
(2)	Large and medium red category industries shall install and commission Continuous Emission Monitoring System-CEMS (as per CPCB guidelines for relevant parameters) which shall be connected with CECB/CPCB server.	**Ferro Alloys Division :** All pollution stacks equipped with Opacity Meter with remote calibration facility for gaseous parameter and is connected to CPCB/CECB servers. **Power Plant Division** Additionally 1 Nos. Opacity meter have been installed at Power Plant stack which is monitored Particulate Matter (PM) and also Continuous Emission monitoring system (CEMS) has been install for Monitoring of SOx and NOx. Both System (Opacity meter and CEMS) are connected with CPCB/CECB Server. Photographs and monitoring data is enclosed As **Enclosure 2 (c).**
(3)	Units shall adhere to sector specific guidelines / SOP published by CPCB from time to time for effective fugitive emission control.	**Agreed and shall be followed.** We are complying all the CPCB compliances with all relevant directives related to fugitive emission control. We have adopted all the method and guidelines to prevent fugitive emissions i.e. RCC road, installation of water sprinkler, manual housekeeping etc. Furthermore, AFAL ensures that all the SOPs and guidelines to strictly followed & Third party

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

STATUS OF CONDITIONS STIPULATED IN **MITIGATION MEASURES ISSUED VIDES LTR. 8175/HO/CGCECB/2019 DATED 17.12.2019** BY CHHATTISGARH ENVIRONMENT CONSERVATION BOARD NAWA RAIPUR CHHATTISGARH ON BEHALF OF **ALOK FERRO ALLOYS LIMITED**, PLOT NO. 458/1, 459/1, URLA INDUSTRIAL AREA, URLA RAIPUR CHHATTISGARH.

		environmental monitoring is being carried out by NABL authorised third party. Report of the same is being submitting to pollution board. Copy of the monitoring report is **Enclosure 2 (d).**
(4)	Conveying system / conveyor belt shall be completely closed. All transfer points / junction points shall be fitted with dust suppression system followed by bag filter.	Closed Conveying system (Closed Conveyer belt) has been installed in all material transfer points. Dust suppression system has been installed at conveyer belt for controlling of dust. **Enclosure 2 (e).**
(5)	Vehicle movement areas / roads within premises shall be made pucca from drain to drain to avoid dusting.	RCC road has been constructed inside the plant premises to control the fugitive dust emission. Photographs enclosed as **Enclosure 2 (f).**
(6)	Odour generating unit shall take adequate measures to control odour nuisance from the industrial activities which may include measures like use of masking agent with atomizer system (water curtain), closed / automatic material handling system, containment of the odour vulnerable areas etc.	Condition is not Applicable. Because No Toxic Odour are generated during Production process.
(7)	Units shall provide wheel wash system at entry and exit point of plant to control wheel generated dust.	Wheel wash systems are being constructed at the entry and exit points of the plant to control dust generated from wheels.
(8)	Units shall not use coal, pet-coke, furnace oil, LSHS as a fuel for new and expansion / diversification activities.	None of those Materials i.e. Coal, pet-Coke, furnace oil, LSHS as a raw Material/fuel in ferro alloys production. We hereby ensure that no additional Coal, pet coke, furnace oil, LSHS, shall be used as fuel for new and expansion/diversification activities. Quantities remains same after execution of our proposal.
(9)	Units shall adopt sectorial Best Available Technology - BAT (Like use of Induction Furnace, Electric Arc Furnace instead of Cupola Furnace, Caustic Recovery System in Cotton Textile units etc.)	Submerged Arc Furnaces are being operated in our Ferro Alloys Plant. No Cupola furnace is installed in existing plant and will not be in expansion phase also.
(10)	Units shall provide green belt of 40% of the total plot area. In case there is restriction of land available within plant	A dense greenbelt has been developed all around the proposed site. Approx. 7683.81 sqm i.e. 10.5% of the

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

	premises for 40% green belt development, then the unit shall carry out balance plantation within 05 km radius from its premises to achieve the required plantation of 40%.	area is developed as a green area within the plant premises and 21974.4 sqm i.e., approx. 30 % of the total plot area is developed outside the plant. The outside land has been allotted by Nagar Palika Nigam Birgaov at different locations i.e. Birgoav Muktidham and Other Govt. Land Urkura. Approx. 13350 Nos. of Trees have been planted outside the premises. Photographs and Appreciation Letter issued from Nagar Nigam, Third Party Assessment Report Enclosed As **Enclosure 2 (g).**
(11)	Development of green belt / plantation outside project premises in adjacent areas such as avenue plantation, plantation in vacant areas, social forestry, etc. shall be ensured.	Presently, we have been done greenbelt and beatification work at Nagar Nigam Alloted nearest located Muktidham. (Govt. land on Urkura, Birgoav Muktidham etc.) .Appreciation letter have been received from nagar nigam Copy of the same is enclosed in **Enclosure 2 (h)**
(12)	Units situated in the industrial areas shall submit certificate regarding adequacy of roads based on carrying capacity of transportation load on roads from CSIDC.	Carrying capacity assessment of roads has been carried out during EIA preparation. Certificate waited from CSIDC, We will submit as soon. Copy of Acknowledgement Copy is enclosed **Enclosure 2 (i)**
(13)	Units situated other than industrial areas shall submit certificate regarding adequacy of roads based on carrying capacity of transportation load on roads from concerning EE, PWD / Concerned Authority of Government of Chhattisgarh.	Not Applicable. Plant situated in Urla Industrial Area.
WATER POLLUTION CONTROL		
(14)	Units 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. Units shall use treated effluent for make-up of cooling water / process water as maximum as possible.	The plant is maintaining zero liquid discharge. Waste/Discharge Water is being treated in STP and reused in the process/greenbelt development. In ferro alloys unit water is being used only for cooling purpose in recirculating manner. However we have made adequate arrangements for treatment of effluent and the

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STATUS OF CONDITIONS STIPULATED IN **MITIGATION MEASURES ISSUED VIDES LTR. 8175/HO/CGCECB/2019 DATED 17.12.2019** BY CHHATTISGARH ENVIRONMENT CONSERVATION BOARD NAWA RAIPUR CHHATTISGARH ON BEHALF OF **ALOK FERRO ALLOYS LIMITED**, PLOT NO. 458/1, 459/1, URLA INDUSTRIAL AREA, URLA RAIPUR CHHATTISGARH.

		processed/recycled/Discharged.
(15)	Large and Medium Red category industries shall install system for continuous monitoring of effluent quality / quantity as per CPCB guidelines for relevant parameters (like pH, Flow, Temperature, TOC/COD etc.) and shall be connected to CECB server. Unit shall also install flow meter.	Presently, Monitoring is being carried out by Authorized NABL Laboratory. Moreover Monitoring is also being carried out by our internal Environment Team. Report of the same is also submitted to RO CECB, Raipur (C.G.). Copy of the same is enclosed as as **Enclosure 2 (j).**
(16)	No ground water withdrawal shall be allowed without permission of CGWA. Units shall use harvested rainwater in the process as maximum as possible..	We have obtained No Objection certificate (NOC) from CGWA vide NOC No. CGWA/NOC/IND/ORIG/2024/20228 dated 29.04.2024 valid till 18.03.2027 for abstraction of 75 KL/D ground water for ferro alloys division and for Power division issued No Objection Certificate (NOC) for abstraction of 100 KLD from CGWA vide NOC No. CGWA/NOC/IND/ORIG/2024/19847 dated 02.02.2024 valid till 14.01.2027. Copy of the same is enclosed as Copy of the same is enclosed **Enclosure 2 (k).**
(17)	Units shall submit calculation regarding total storm water received in the premises, potential of rain water harvesting and quantity to be harvested along with details of proposed structures.	3 Nos. Rain Water Harvesting and traditional type Soak pit have been constructed inside the plant premises. In which Approx. 13438 KL/year water is being recharge into the ground water through injection well through horizontal connected pipe with "V" wire filter Unit. Hence existing RWH structure is sufficient for existing and proposed premises. Certificate of Completion is enclosed as **Enclosure 2 (l).**
(18)	Units shall ensure recharging of ground water by rainwater harvesting of at-least double the quantity of water use by them, which shall be done within or outside the premises.	Agreed.
(19)	Units shall explore Techno-Economic feasibility of Zero Liquid Discharge (ZLD) and if feasible, ZLD should be adopted.	Zero Discharge Condition is being maintained.
(20)	Units having domestic waste water generation more than 10 KLPD shall install STP of adequate capacity and treated effluent shall be reused/recycled within plant premises.	Sewage treatment plant capacities of 100 KL have been installed to treat domestic wastewater and reuse in the plant. Treated water is being utilized for dust suppression, ash conditioning and for green development.

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STATUS OF CONDITIONS STIPULATED IN **MITIGATION MEASURES ISSUED VIDES LTR. 8175/HO/CGCECB/2019 DATED 17.12.2019** BY CHHATTISGARH ENVIRONMENT CONSERVATION BOARD NAWA RAIPUR CHHATTISGARH ON BEHALF OF **ALOK FERRO ALLOYS LIMITED**, PLOT NO. 458/1, 459/1, URLA INDUSTRIAL AREA, URLA RAIPUR CHHATTISGARH.

LAND		
(21)	Units shall provide green belt of 40% of the total plot area. In case there is restriction of land available within plant premises for 40% green belt development, then the unit shall carry out balance plantation within 05 km radius from its premises to achieve the required plantation of 40%.	A dense greenbelt has been developed all around the proposed site. Approx. 7683.81 sqm i.e. 10.5% of the area is developed as a green area within the plant premises and 21974.4 sqm i.e., approx. 30 % of the total plot area is developed outside the plant. The outside land has been allotted by Nagar Palika Nigam Birgaov at different locations i.e. Birgoav Muktidham and Other Govt. Land Urkura. Approx. 13350 Nos. of Trees have been planted outside the premises. Photographs and Appreciation Letter issued from Nagar Nigam, Third Party Assessment Report Enclosed As **Enclosure 2 (h).**
(22)	Development of green belt / plantation outside project premises in adjacent areas such as avenue plantation, plantation in vacant areas, social forestry, etc. shall be ensured. Units shall strictly carry out handling, storage and disposal of fly-ash, slag, red-mud, sludge etc. (High Volume- Low Effect Wastes) as per prevailing guidelines and its disposal at designated locations approved by the Board.	
(23)	Units shall dispose its hazardous wastes through co-processing, pre-processing to the extent possible prior its disposal to incineration/landfill as per provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.	Storage and handling of hazardous waste is being done as per provisions of Hazardous Waste Rules, 2016. Waste/used oil used for heating ladle and machinery lubrication and will be stored in covered HDPE Drums and will be given to approve vendors/authorized recyclers and also waste oil is reused in co-processing. Copy of Manifest Form 10 is enclosed as **Enclosure 2 (m).**
(24)	Units 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.	Agreed.
(25)	Units shall carry out transportation of hazardous wastes through GPS mounted vehicles only.	Agreed and shall be followed. All the Conditions of CECB are accepted to us regarding.

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

STATUS OF CONDITIONS STIPULATED IN **MITIGATION MEASURES ISSUED VIDES LTR. 8175/HO/CGCECB/2019 DATED 17.12.2019** BY CHHATTISGARH ENVIRONMENT CONSERVATION BOARD NAWA RAIPUR CHHATTISGARH ON BEHALF OF **ALOK FERRO ALLOYS LIMITED**, PLOT NO. 458/1, 459/1, URLA INDUSTRIAL AREA, URLA RAIPUR CHHATTISGARH.

		Transportation of Hazardous Waste.
OTHER CONDITIONS (ADDITIONAL)		
(26)	All Environmental Clearance granted units shall submit report of compliance of the conditions of EC every year to the Board prepared by third party.	Agreed and being followed. We ensure that Six Monthly Compliances will be sent to Regional office MOEF & CC, Raipur every six months. Third party Audit report of EC conditions shall be submitted to the Board As shall be describing in EC Conditions.
(27)	New and expansion / diversification units which will obtain Environmental Clearance shall enhance CER fund allocation to at least 1.5 times the slabs given in the OM dated 01/05/2018 for SPA and 2 times for CPA in case of Environmental Clearance.	The industry has contributed to Hira CSR Foundation approximately INR 39.05 lakhs towards Corporate Social Responsibility (CSR) in last three financial years. For the proposed project, an amount of INR 8.5 lakhs has been earmarked for Corporate Environment Responsibility (CER) activities. Out of this, INR 4.5 lakhs will be utilized in the first year and about INR 4 lakhs in the second year, primarily for undertaking tree plantation programs in nearby villages. In addition, through Through CER activity company management will be committed to improve infrastructural facilities for the local people in the field of environmental and medical.

For, ALOK FERRO ALLOYS LIMITED

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

AUTHORIZED SIGNATORY

Enclosure 2 (a)

ALOK FERRO ALLOYS LIMITED
PLOT NO. 458/1, 459, ULRA INDUSTRIAL AREA, URLA RAIPUR CHHATTISGARH 492003

PHOTOGRAPHS OF POLLUTION CONTROL SYSTEM

DIVISION FERRO ALLOYS (3 X 4.5 MVA _SAF)

BAG HOUSE NO. 1

BAG HOUSE NO. 2

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

PHOTOGRAPHS OF ESP (POWER PLANT DIVISION)

ALOK FERRO ALLOYS LTD.
HIRA
RAIPUR (C.G.)

Enclosure No. 2 (a)

ALOK FERRO ALLOYS LIMITED

PLOT NO. 458/1, 459, URLA INDUSTRIAL AREA, URLA, RAIPUR CHHATTISGARH 492003

POLLUTION LOAD AFTER EXECUTION OF PROPOSAL

BRIEF OF PROPOSAL

The company has proposed for **"Expansion of Existing Ferro Alloy Plant"** by **"Forward integration using high-grade Mn ore and other raw material"**. It has also proposed to manufacture Fe-Si (Ferrosilicon) and Pig Iron in the existing plant under proposed expansion. Details of products and production capacity of the plant are given below in **Table 1.1.**

Table 1.1 : Details of Products and Production Capacity of Plant

Particulars	Existing	After Expansion
Furnace Configuration		
SAF	3 x 4.5 MVA	3 x 4.5 MVA
Production Capacity		
Si-Mn	14,496 TPA	19,000 TPA or
Fe-Mn		28,000 TPA or
Fe-Si	-	9,000 TPA or
Pig Iron	-	28,500 TPA

The planned augmentation in production capacity will be achieved primarily through debottlenecking initiatives and a change in raw material. Previously, Ferro Alloys were produced using domestically sourced manganese (Mn) ores, which were primarily silicate in composition. The recovery of Mn from this silicate, Mn ores was comparatively lower, typically ranging from 65% to 70%. However, with the shift to imported Mn ore characterized by its oxide nature an exothermic reaction shall initiate within the furnace. This reaction has played a crucial role in enhancing the smelting process, resulting in a significant improvement in Mn recovery, which has now increased to approximately 80% and above.

The silico manganese has a vide range of specification wherein the manganese ranges from 55 % to 72 %, silicon ranges from 13 % to 28 %. With such increases in silicon content the carbon in silico manganese reduces from 2.5 % to 0.10 % making the product as low carbon SiMn. Therefore, as such the requirement of carbon in production of silicon manganese widely ranges from 410 KG to 620 KG in DMTU (Dry Metric Tonne Unit), depending on the specific grade being produced.

Consequently, it can be incurred /relatable that with decreases in silicon content and increase in manganese/iron in the manganese alloys the product becomes ferro manganese. For ferro manganese the carbon consumption ranges from 360 -390 KG per ton of metal.

Concomitant with this enhanced recovery, the carbon consumption rate in the furnace has diminished from range of 410-620 kg per ton of metal to approximately 380 - 590 kg per ton of metal.

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

Furthermore, due to the utilization of a higher-grade Mn ore and the resulting exothermic reaction, there has been a concurrent reduction in specific slag production per ton of finished product. This improvement is also associated with a reduction in specific power consumption per ton of finished product which ranges between 3800 – 6200 KWh as global standard.

The transition from domestic Manganese (Mn) to imported Mn, with shift of Higher FC Coke and Coal.

This will yield the following enhancements in production capacity through debottlenecking measures:

- **Increased Smelting Rate**: Utilization of high-grade Mn Ore, characterized by its dioxide composition and minimal gangue content, will result in an augmented smelting rate.
- **Enhanced Production on an Hourly Basis**: The incorporation of high-grade coke will lead to an elevated smelting rate, consequently increasing production on a per-hour basis.
- **Pre-Reduction of Ore**: The utilization of dioxide ore initiates a pre-reduction process directly atop the furnace. This process augments the overall reduction rate within the furnace.

TOTAL RAW MATERIAL QUNATITIES IN FERRO ALLOYS DIVISION

Sr. No	Product	Existing (TPA)	After Expansion (TPA)	Source	Max. Road travelled Distance (Km)	Mode of Transportation
Ferro Alloys (SiMn And/or FeMn And/or FeSi) And/or Pig Iron						
1	Manganese Ore	40,589	70,000	Vishakhapatnam Port	560	Road & Sea
2	Coal / Charcoal	7,610	7,600	Indigenous	600	Road & Sea
3	coke/ semicoke	3,986	12,040	Indigenous	600	Road
4	Dolomite/ Limestone	3,624	9,975	Indigenous	60	Road
5	Carbon Paste	435	840	Indigenous	370	Road
6	High Mn Slag	4,349	5,700	Indigenous	10	Road
7	Iron Ore/Iron Ore Fines	0	54,150	Indigenous	10	Road
8	Quartz.	3,624	18,000	Indigenous	50	Road
9	Electrode Paste	0	713	Indigenous	200	Road
10	Mill Scale	0	14,535	Indigenous	10	Road

WATER POLLUTION

Water is pre-dominantly required in the Ferro Alloys Plant for cooling. In addition, it is used for controlling dust, drinking & sanitation, and other miscellaneous purposes. The plant water system comprised a make-up water system, drinking water and DM water system as well as emergency water supply system for the vital units of the plant.

The freshwater consumption of the existing unit is 600 KLD which is primarily used for cooling, steam generation and domestic purposes. After expansion, the freshwater requirement will remain same i.e., 600 KLD. Plant has valid approval from CSIDC and CGWA & agreement with Raipur Municipal Corporation for supply of 3 MLD Sewage Treated Water from 90 MLD STP situated at Village Nimora for Whole group of Companies, out of which 1 MLD water will be drawl for Alok Ferro Alloys Limited.

The water requirement of plant is optimized by the following measures:

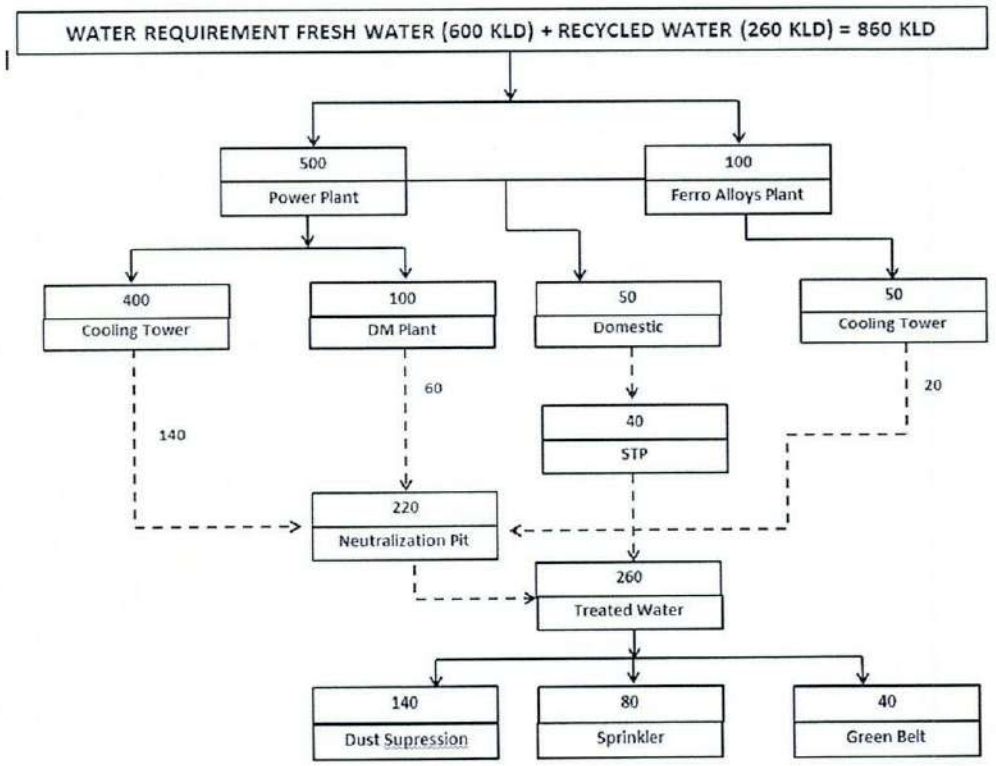
- Cooling Tower is installed in recirculating manner at Ferro Alloys Division.
- STP have been installed to treat domestic wastewater and reuse in the plant.
- Treated water is being utilized for dust suppression, ash conditioning and for green development.
- Closed circuit cooling system is adopted.

Table 1.2 : Freshwater Details (KLD)

S. No.	Particular	Quantity (KLD)
1	Cooling Tower for Power Plant	400
2	DM Plant for Boiler	100
3	Ferro Alloys Plant	50
4	Domestic	50
	Total	**600**

Table 1.3 : Recycled Water (KLD)

S. No.	Particular	Quantity (KLD)
1	Sprinkling	80
2	Dust Suppression	140
3	Green Belt	40
	Total	**260**



The wastewater generation from the existing plant is 260 KLD (Industrial: 220 KLD and Domestic: 40 KLD). After expansion, the wastewater generation of plant will remain same i.e., 260 KLD.

Effluent of 220 KLD is being collected in two separate RCC tanks made for collection and treatment of waters in which the suspended solids got settled in tank-I through gravity and this water is collected in tank - II. The water is further processed through charging of lime and bleaching for balancing of PH. For COD and BOD balancing in the tank, air pipes are separately arranged and blown up in regular intervals. After completion of all the process the treated water is supplied through pumps where all the water is pumped and reused in the plant.

Domestic wastewater is being treated in STP and reused for gardening and other purposes. Same practices will be followed after expansion. Plant will be Zero liquid discharge project.

Details of wastewater generation are given below in **Table 2.26.**

Table 1.4 : Treated Wastewater Utilization

S. No.	Particular	Quantity (KLD)
1	Cooling Tower Blowdown	160
2	DM Reject	60
3	Domestic	40
	Total	**260**

AIR POLLUTION

The primary emissions from the units will comprise particulate matter and gaseous substances. To mitigate these pollutants, high-efficiency bag filters and gas cleaning facilities have been installed. These systems are designed to effectively reduce both gas and dust emissions. Dust generated from the semi-closed Submerged Arc Furnace (SAF) is captured through a dry-type gas cleaning plant. The resulting clean gas, post-combustion or incineration, is subsequently released through an appropriately elevated chimney following filtration through bag filters. Online Continuous Emission Monitoring system (OCEMS) has already been installed to Submerged Arc furnace. Details of Stack and Air Pollution Control Equipment are given below:

S. No.	Stack Attached to	APCS	Height (m)	Dia (m) (Top)	Temp (K)	Flow (Nm^3/hr)	Remark
1	2 x 4.5 MVA (Common Stack)	Bag Filter	30.5	1.65	100-120 °C	2 x 67500	Existing
2	1 x 4.5 MVA	Bag Filter	30.5	1.00	100-120 °C	67500	Existing

TECHNICAL SPECIFICATION OF BAG FILTERS

S.NO.	PARTICULATES	1 x 4.5 MVA	1 x 4.5 MVA	1 x 4.5 MVA
1	Furnace No.	1	2	3
2	Pollution Control System	Pulse Jet Bag House Filter with Heat Exchanger	Pulse Jet Bag House Filter with Heat Exchanger	
3	Cooling Unit	Heat Exchanger (LP Economiser)and FG cooler	Heat Exchanger (LP Economiser) and FG cooler	
4	No Of Id Fans in Heat Exchanger	ID FAN: 1 NOS.	ID FAN: 2 NOS.	
5	Furnace Cooling System	Close-Cooling System - Common to All Three Furnace		
6	Transformer Cooling	Wet Cooling System	Wet Cooling System	Wet Cooling System
7	Fuel Used	Electricity	Electricity	Electricity
8	Type Of Pollution Control System	Pulse Jet Bag House Filter with Heat Exchanger	Pulse Jet Bag House Filter with Heat Exchanger	
9	Application	Fume Extraction System for Furnace	Fume Extraction System for Furnace	
10	Volumatric Flow Rate (Nm3/Hr) ID Fan	72400	2 x72400	
11	Gas Volume M3/Hrs	67500 M3 /HRS	67500 X 2 M3 / HRS	
12	Pressure of Fan	460 mmWC	460 mmWC	
13	Bag Size	150 x 4200	150 x 4200	
14	No. Of Compartment in Bag House	4	8	
16	No Of Bags in Each Compartment	168	144	
16	Total No. Of Bags	672	1152	
17	Inlet Dust Load (gm/Nm3)	5	5	
18	Outlet Dust Load (mg/Nm3) (Existing Standard Limit)	< 30	< 30	
20	Dust Handled	Fume Coming During the Manufacturing Process of Ferro Alloys Unit	Fume Coming During the Manufacturing Process of Ferro Alloys Unit	
21	No. of Id Fans	1 NOS.	2 Nos.	
22	No. of FG Cooler Fans	3 NOS	4 Nos.	

NO INCREASE IN POLLUTION LOAD FOR FERRO ALLOYS DIVISION

PRODUCT: SILICO MANGANESE

EXISTING												
Sr. No.	Facility	Gass Flow (Nm3/Hr)	Emission Norms (mg/Nm3)	Emission (Kg/Hr)	Emission (Kg/Day)	No. of Operation Day	Emission (Kg/Year)	Emission (Tonnes/Year)	Emission (Tonnes/Year)	Production (TPA)	Pollution load (Ton per Ton of product)	Pollution load (Kg per Ton of product)
1	SAF (4.5 MVA)	67500	50	3.38	81.00	365	29565.00	29.57	88.70	14496	0.006118584	6.119
2	SAF (2 X 4.5 MVA)	135000	50	6.75	162.00	365	59130.00	59.13				
Total				**10.13**	**243.00**		**88695.00**	**88.70**	**88.70**			

AFTER EXPANSION												
Sr. No.	Facility	Gass Flow (Nm3/Hr)	Emission Norms (mg/Nm3)	Emission (Kg/Hr)	Emission (Kg/Day)	No. of Operation Day	Emission (Kg/Year)	Emission (Tonnes/Year)	Emission (Tonnes/Year)	Production (TPA)	Pollution load (Ton per Ton of product)	Pollution load (Kg per Ton of product)
1	SAF (4.5 MVA)	74250	30	2.23	53.46	365	19512.90	19.51	58.54	19000	0.003080984	3.081
2	SAF (2 X 4.5 MVA)	148500	30	4.46	106.92	365	39025.80	39.03				
Total				**6.68**	**160.38**		**58538.70**	**58.54**	**58.54**			

NO INCREASE IN POLLUTION LOAD FOR FERRO ALLOYS DIVISION

And/Or PRODUCT: FERRO MANGANESE

EXISTING												
Sr. No.	Facility	Gass Flow (Nm3/Hr)	Emission Norms (mg/Nm3)	Emission (Kg/Hr)	Emission (Kg/Day)	No. of Operation Day	Emission (Kg/Year)	Emission (Tonnes/Year)	Emission (Tonnes/Year)	Production (TPA)	Pollution load (Ton per Ton of product)	Pollution load (Kg per Ton of product)
1	SAF (4.5 MVA)	67500	50	3.38	81.00	365	29565.00	29.57	88.70	14496	**0.00611858**	6.119
2	SAF (2 X 4.5 MVA)	135000	50	6.75	162.00	365	59130.00	59.13				
Total				**10.13**	**243.00**		**88695.00**	**88.70**	**88.70**			

PROPOSED												
Sr. No.	Facility	Gass Flow (Nm3/Hr)	Emission Norms (mg/Nm3)	Emission (Kg/Hr)	Emission (Kg/Day)	No. of Operation Day	Emission (Kg/Year)	Emission (Tonnes/Year)	Emission (Tonnes/Year)	Production (TPA)	Pollution load (Ton per Ton of product)	Pollution load (Kg per Ton of product)
1	SAF (4.5 MVA)	74250	30	2.23	53.46	365	19512.90	19.51	58.54	28000	**0.002090668**	2.091
2	SAF (2 X 4.5 MVA)	148500	30	4.46	106.92	365	39025.80	39.03				
Total				**6.68**	**160.38**		**58538.70**	**58.54**	**58.54**			

NO INCREASE IN POLLUTION LOAD FOR FERRO ALLOYS DIVISION

And/Or PRODUCT: PIG IRON (NEW PROPOSED PRODUCT)

EXISTING												
Sr. No.	Facility	Gass Flow (Nm3/Hr)	Emission Norms (mg/Nm3)	Emission (Kg/Hr)	Emission (Kg/Day)	No. of Operation Day	Emission (Kg/Year)	Emission (Tonnes/Year)	Emission (Tonnes/Year)	Production (TPA)	Pollution load (Ton per Ton of product)	Pollution load (Kg per Ton of product)
1	SAF (4.5 MVA)	67500	NOT APPLICABLE									
2	SAF (2 X 4.5 MVA)	135000										
Total												

PROPOSED												
Sr. No.	Facility	Gass Flow (Nm3/Hr)	Emission Norms (mg/Nm3)	Emission (Kg/Hr)	Emission (Kg/Day)	No. of Operation Day	Emission (Kg/Year)	Emission (Tonnes/Year)	Emission (Tonnes/Year)	Production (TPA)	Pollution load (Ton per Ton of product)	Pollution load (Kg per Ton of product)
1	SAF (4.5 MVA)	74250	30	2.23	53.46	365	19512.90	19.51	58.54	28500	0.002053989	2.054
2	SAF (2 X 4.5 MVA)	148500	30	4.46	106.92	365	39025.80	39.03				
Total				**6.68**	**160.38**		**58538.70**	**58.54**	**58.54**			

NO INCREASE IN POLLUTION LOAD FOR FERRO ALLOYS DIVISION

And/Or PRODUCT: FERRO SILICON (NEW PROPOSED PRODUCT)

EXISTING												
Sr. No.	Facility	Gass Flow (Nm3/Hr)	Emission Norms (mg/Nm3)	Emission (Kg/Hr)	Emission (Kg/Day)	No. of Operation Day	Emission (Kg/Year)	Emission (Tonnes/Year)	Emission (Tonnes/Year)	Production (TPA)	Pollution load (Ton per Ton of product)	Pollution load (Kg per Ton of product)
1	SAF (4.5 MVA)	45000	NOT APPLICABLE									
2	SAF (2 X 4.5 MVA)	90000										
Total												

PROPOSED												
Sr. No.	Facility	Gass Flow (Nm3/Hr)	Emission Norms (mg/Nm3)	Emission (Kg/Hr)	Emission (Kg/Day)	No. of Operation Day	Emission (Kg/Year)	Emission (Tonnes/Year)	Emission (Tonnes/Year)	Production (TPA)	Pollution load (Ton per Ton of product)	Pollution load (Kg per Ton of product)
1	SAF (4.5 MVA)	49500	30	1.49	35.64	365	13008.60	13.01	39.03	9000	0.0043362	4.336
2	SAF (2 X 4.5 MVA)	99000	30	2.97	71.28	365	26017.20	26.02				
Total				**4.46**	**106.92**		**39025.80**	**39.03**	**39.03**			

SOLID AND HAZARDOUS WASTE GENERATION

During operation activity, the major solid waste is slag being generated from the plant, which is partially utilized in plant and remaining is being sold out to other manufacturers. Details of waste generation and disposal method are given below in **Table .**

List of Solid/Hazardous Waste Generation & their Disposal Method

Sr. No.	Type of waste	Cat. & Sch	Quantity (MTPA)		Disposal Method
			Existing	After Expansion	
1	Si-Mn Slag	-	14,500	19,000	Used for filling of low-lying area/land filling/ construction purpose/ sell to Cement plant.
2	Or Fe-Mn Slag	-	14,500	22,400	Reused as raw material in manufacturing of Silico Manganese/ Sold to Si-Mn Manufacturers.
3	Or Pig-Iron Slag	-	-	37,050	Used for filling of low-lying area/land filling/ construction purpose/ sell to Cement plant.
4	Or Fe-Si slag	-	-	1125	Used for filling of low-lying area/land filling/ construction purpose/ sell to Cement plant.
5	Bag Filter dust	-	850	900	Sent to Cement plants
6	Used/spent oil	5.1 (Sch I)	1.5 KLPA	2 KLPA	To authorized recycler.
7	Spent oil exchange resin containing toxic metals	34.2 (Sch I)	0.004 MT	0.004 MT	To be utilized for energy recovery in Boiler for steam or power generation.
8	Empty Barrels/ Containers/liners contaminated with hazardous chemicals/wastes	33.1 (Sch I)	6 Nos.	10 Nos.	Sold to Authorized Recyclers

Sr. No.	Type of waste	Cat. & Sch	Quantity (MTPA)		Disposal Method
			Existing	After Expansion	
9	Waste or residue containing oil	5.2 (Sch I)	01 MT/ Year	01 MT/ Year	Sold to Authorized Recyclers
10	Contaminated cotton rags or other cleaning materials	33.2 (Sch I)	0.5 MT/ year	0.5 MT/ year	Disposal through CTSDF/ Co-processing in cement plant
11	Oil and grease skimminig	35.4 (Sch I)	0.5 MT/ year	0.5 MT/ year	Sold to Authorized Recyclers
12	Glass wool	C4, Sch II	1.0 MT/ year	1.0 MT/ year	Disposal through CTSDF
13	Fly Ash	-	54325	54325	Dispatch to bricks Manufactures
14	Bottom Ash	-	9587	9587	Dispatch to bricks Manufactures

FLY ASH HANDLING AND DISPOSAL

The ash generated is collected from Economizer, Air preheater, and ESP to the dry silo. The installed capacity of dedicated silo for storage of dry fly ash is 300 MT. The fly-ash from silo is disposed of using two methods: Dry-ash disposal using bulkers and wetconditioned fly-ash disposal using dumper trucks. The silo contains two different hoppers to facilitate the disposal. The water conditioning is done using pumps which are 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 appropriate precautions to prevent air and water pollution are taken. The fly-ash is being sent to Brick manufacturers. Botton-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.

Authorized Signatory

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

ALOK FERRO ALLOYS LIMITED
PLOT NO. 458/1, 459, ULRA INDUSTRIAL AREA, URLA RAIPUR CHHATTISGARH 492003

ENCLOUSRE 2 (C)

.PHOTOGRAPHS OPACITY METER

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

ALOK FERRO ALLOYS LIMITED
PLOT NO. 458/1, 459, ULRA INDUSTRIAL AREA, URLA RAIPUR CHHATTISGARH 492003

POWER PLANT

PHOTOGRAPHS OF CEMS (CONTINOUS EMISSION MONITORING SYSTEM)

OPACITY METER

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

ALOK FERRO ALLOYS LIMITED
PLOT NO. 458/1, 459, ULRA INDUSTRIAL AREA, URLA RAIPUR CHHATTISGARH 492003

MICRO AMBIENT AIR QUALITY MONITORING STATION

ALOK FERRO ALLOYS LTD.
HIRA
RAIPUR (C.G.)

HIRA
ALOK FERRO ALLOYS

COPY

AFAL/ENV/25-26/155 **DATE: 13.09.2025**

16 SEP 2025

To,
The Regional Officer
Chhattisgarh Environment Conservation Board
New Office Building, Ring Road No. – 2,
Tatibandh, Dist. – Raipur (C.G.)

Subject: Submission of Monthly Ambient Air Quality Monitoring, Stack Emission Monitoring & Treated Water Analysis Report month of August -2025.

Respected Sir,

This is in reference to aforesaid subject matter; we are submitting herewith Ambient Air Monitoring Report & Stack Emission Report and Water Quality Report for the Month of **August-2025** for **ALOK FERRO ALLOYS LIMITED**, Situated at 458/1, 459, Urla Industrial Area, Urla Raipur (C.G.).

Kindly acknowledge the receipt.

Thanking you

Yours Faithfully

For, ALOK FERRO ALLOYS LTD.

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

R.O.C.E.C.B. L.R. NO. DATE. Ring Road No. 2 Tatibandh, Raipur

16 SEP 2025

Authorized Signatory

Cc: Member Secretory, Chhattisgarh Environment Conservation Board (HO), Paryavas Bhwan, Sector – 19, Atal Nagar, Nawa Raipur (C.G.)

Alok Ferro Alloys Limited
CIN - U28112CT1987PLC003847
Registered Office & Works : Plot No. 458/1 & 459, Urla Insutrial Complex, Raipur - 492003, Chhattisgarh, India
P: +91 771 4082350-60, F: +91 771 4082452
Corporate Office : Ground Floor, Hira Arcade, Near Bus Stand, Pandri, Raipur - 492004, Chhattisgarh, India
P: +91 771 4082470, F: +91 771 4082742
www.alokferrow.com, www.hiragroup.com

HIRA

GODAWARI POWER & ISPAT

428/2, Phase-1, Industrial Area, Siltara, Raipur - 493111, Chhattisgarh, India

AMBIENT AIR & STACK EMISSION MONITORING REPORT

GPIL/EMS/2025-26/ 128

Date: - 04.09.2025

M/s ALOK FERRO ALLOY

FOR THE MONTH OF **Aug - 2025**

I. SAMPLING DETAILS :	
Date of Sampling	07.08.2025
Date of Analysis	08.08.2025
Monitored by	Mr. Feroz Khan & Mr. Prakash Dewangan
Analyzed by	Mr. Ugendra Verma

II. AMBIENT AIR MONITORING RESULTS

Parameter	Prescribed Limit As Per CECB ($\mu g/m^3$)	Location			
		DM Plant (North)	*Near Laboratory (South)*	*Main Gate (East)*	*Power Store(West)*
PM_{10}	100.00	61.5	51.7	57.6	59.0
$PM_{2.5}$	60.00	29.6	23.3	27.5	28.7
SO_2	80.00	20.4	14.8	17.0	19.0
NO_x	80.00	25.9	20.2	23.4	24.2

III. STACK EMISSION MONITORING RESULTS

S.N.	Monitoring Point	Date of Monitoring & Analysis	Prescribed Limit As Per CECB mg/Nm^3	Measured Concentration in mg/Nm^3
1	AFBC	07.08.2025	**50.00**	39.2
2	Ferro Alloys(Fur.-I & II)	07.08.2025	**50.00**	27.6
3	Ferro Alloys(Fur.-III)	07.08.2025	**50.00**	24.4

CHEMIST

AGM

Head of the Department
Environment Management System

Abbreviation: CECB-Chhattisgarh Environment Conservation Board; PM-Particulate Matter; AFBC- Air Fludiesed Bed Combustion
Monitoring & Analysis Protocols : PM-IS 11255 (Part-I) 1985:Reaff. 2003) SO_2- Indian Standard IS :5182 (Part 2), 2001: NOx- IS 5182 (Part VI) : 2006 1st 201 PM10 & PM2.5 -IS 5182 (Part 23) : 2006.

HIRA

GODAWARI POWER & ISPAT
428/2, Phase-1, Industrial Area, Siltara, Raipur - 493111, Chhattisgarh, India

WATER ANALYSIS REPORT

GPIL/EMS/2025-26/ 129 Date: 04.09.2025

M/s ALOK FERRO ALOY

A. SAMPLING DETAILS :

1	Sample collected from source	TREATED WATER
2	Date of Collection	07.08.2025
3	Date of Analysis	08.08.2025 to 11.08.2025
4	Sample collected by	Mr. Prakash Dewangan
5	Analyzed by	Mr. Ugendra Verma

B. ANALYSIS DETAILS :

S. N.	Characteristics	Permissible Limits	Sample Results	Analysis Method
1	TEMPERATURE	Not more than 5 ºC to intake water	26.2 ºC	IS 3025: Part 09
2	pH	5.5-9.0	7.46	IS 3025: Part 11
3	TSS	100.0 mg/l	38.2	IS 3025: Part 17
4	COD	250	42.0	ASTM: D1252-06
5	BOD	30	6.8	IS 3025: Part 27
6	Oil & Grease	10	2.0	IS 3025: Part 39

Chemist

AGM

Head of the Department
(Environment Management System)

Abbreviation: ASTM- American Society for testing & Materials, APHA- American Public Health Association, IS - Indian Standard; **Monitoring & Analysis Protocols :** as per Indian Standard Manual of various part/editions, for Water & Waste water analysis.

TEST REPORT

Report No.: GECPL/AA-202507/53			Date:		05/08/2025
URL No.:					
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Contact Person	:	Mr. Tarun Kumar			
Sample Collection Date	:	26/07/2025	Sampling Type	:	NA
Sample Receipt Date	:	30/07/2025	Sample ID	:	AA-202507/53
Sampling Location	:	Near Fly ASH Silo	Sample Description	:	Ambient Air Instrument ID – GECPL/RDS/01
Sample Collected / Submitted by	:	GECPL Team	Protocol used for monitoring	:	IS 5182 (Part - 14)
Quantity / No. of Sample	:	1 Filter paper	Analysis Started On	:	30/07/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	05/08/2025
Type of Container	:	Plastic Zip Lock	Format No.	:	7.8 F-05
Meteorological condition during monitoring			25°C ±3 °C		

Fugitive Emission Analysis Results

Sr. No.	Parameter	Result	Unit	Protocol used for Analysis	Limit
1	Suspended Particulate matter (SPM)	255.6	µg/m³	IS 5182 (Part 04) 2019	600 Max

Remarks: Sampling done by GECPL representative (Mr. Lokesh Palsaniya).

Tested By
(Sr. Chemist/Chemist)

Gurukripa Enviro Care Pvt. Ltd. Auth. Sign.

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.

TEST REPORT

Report No.: GECPL/AA-202507/54			Date:		05/08/2025
URL No.:					
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Contact Person	:	Mr. Tarun Kumar			
Sample Collection Date	:	26/07/2025	Sampling Type	:	NA
Sample Receipt Date	:	30/07/2025	Sample ID	:	AA-202507/54
Sampling Location	:	Weight Bridge Area	Sample Description	:	Ambient Air Instrument ID – GECPL/RDS/02
Sample Collected / Submitted by	:	GECPL Team	Protocol used for monitoring	:	IS 5182 (Part - 14)
Quantity / No. of Sample	:	1 Filter paper	Analysis Started On	:	30/07/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	05/08/2025
Type of Container	:	Plastic Zip Lock	Format No.	:	7.8 F-05
Meteorological condition during monitoring			25°C ±3 °C		

Fugitive Emission Analysis Results

Sr. No.	Parameter	Result	Unit	Protocol used for Analysis	Limit
1	Suspended Particulate matter (SPM)	225.6	µg/m³	IS 5182 (Part 04) 2019	600 Max

Remarks: Sampling done by GECPL representative (Mr. Lokesh Palsaniya).

Tested By
(Sr. Chemist/Chemist)

Gurukripa Enviro Care Pvt. Ltd. Auth. Sign.

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

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- Samples shall be stored for the period of 15 days after the date of issue of Report.

GURUKRIPA ENVIRO CARE PVT. LTD.

Complete Enviro Solution

TEST REPORT

Report No.: GECPL/AA-202507/55			Date:		05/08/2025
URL No.:					
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Contact Person	:	Mr. Tarun Kumar			
Sample Collection Date	:	26/07/2025	Sampling Type	:	NA
Sample Receipt Date	:	30/07/2025	Sample ID	:	AA-202507/55
Sampling Location	:	Near Coal Yard	Sample Description	:	Ambient Air Instrument ID – GECPL/RDS/03
Sample Collected / Submitted by	:	GECPL Team	Protocol used for monitoring	:	IS 5182 (Part - 14)
Quantity / No. of Sample	:	1 Filter paper	Analysis Started On	:	30/07/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	05/08/2025
Type of Container	:	Plastic Zip Lock	Format No.	:	7.8 F-05
Meteorological condition during monitoring			25°C ±3 °C		

Fugitive Emission Analysis Results

Sr. No.	Parameter	Result	Unit	Protocol used for Analysis	Limit
1	Suspended Particulate matter (SPM)	310.2	µg/m³	IS 5182 (Part 04) 2019	600 Max

Remarks: Sampling done by GECPL representative (Mr. Lokesh Palsaniya).

Tested By
(Sr. Chemist/Chemist)

Gurukripa Enviro Care Pvt. Ltd. Auth. Sign

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

This Report is issued under the following terms & Condition:

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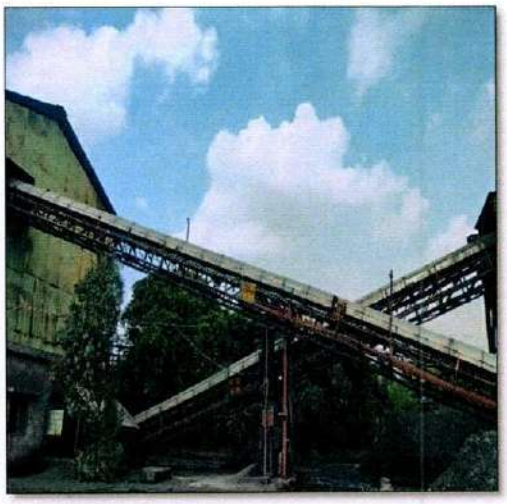
- The test report in full or part shall not be used for promotional or publicity purposes without the written consent of Gurukripa Enviro Care Private Limited.
- Samples shall be stored for the period of 15 days after the date of issue of Report.

ALOK FERRO ALLOYS LIMITED

PLOT NO. 458/1, 459, URLA INDUSTRIAL AREA, URLA RAIPUR CHHATTISGARH

Enclosure 2 (e)

PHOTOGRAPHS OF COVERED CONVEYER BELT



ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

ALOK FERRO ALLOYS LIMITED

PLOT NO. 458/1, 459, URLA INDUSTRIAL AREA, URLA RAIPUR CHHATTISGARH

PHOTOGRAPHS OF WATER SPRINKLER

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

Enclosure 2 (f)

ALOK FERRO ALLOYS LIMITED

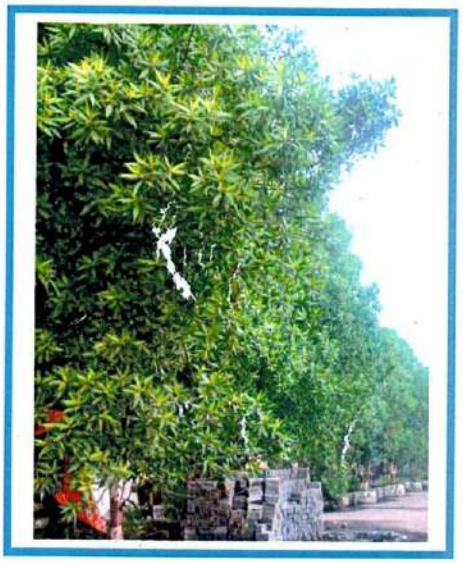
PLOT NO. 458/1, 459, URLA INDUSTRIAL AREA, URLA RAIPUR CHHATTISGARH 492003

PHOTOGRAPHS OF RCC ROADS

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

Enclosure 2 (g)

GREEN BELT SURVEY & EVALUATION REPORT OF M/s ALOK FERRO ALLOYS LIMITED. URLA INDUSTRIAL AREA, RAIPUR. (C.G.)



M/s ALOK FERRO ALLOYS LIMITED.

Situated at Plot. No. 458/1, 459 Urla Industrial area – Urla, Raipur (Chhattisgarh)

Report Prepared by: S. K. ROY
Retd. A C F (C. G. Forest)

"SEIDR"

Submitted by: "Society for Environment & Integrated Development Raipur"Raipur (Chhattisgarh)

Evaluation of Green Belt Development

FOR

M/s ALOK FERRO ALLOYS LIMITED

Situated at Plot No. 458/1, 459 ,UrlaIndustrial Area – Urla, Raipur (C.G.)

Survey & Evaluation by: "Society for Environment & Integrated Development Raipur"
Raipur (C.G.)

GREEN BELT: SURVEY & EVALUATION REPORT OF M/s ALOK FERRO ALLOYS LIMITED

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PART – A

INTRODUCTION

Alok Ferro Alloys Limited is existing Ferro Alloys plant (through Submerged Arc Furnace route) & Captive Power Plant 8 MW at plot No. 458/1, 459, Urla Industrial Area, Urla, Raipur, Raipur, Chhattisgarh, 492003. The company was promoted by ShriGopal Prasad Agrawal& presently running under the leadership of ShriVinayAgrawal who is the Director of Unit, Under their active guidance the company has been continuously expanding and diversifying its activities and has recorded substantial growth. Date of Commencement of production is March 1995 for ferro Alloys and Feb 2006 for Power Plant.

OCCUPIER & FACTORY MANAGER OF THE UNIT

SHRI AJAY DUBEY (Director)
Alok Ferro Alloys Limited
458/1, 459, Urla Industrial Area, Urla, Raipur, Chhattisgarh, 492003.
Mail ID : ajay.dubey@hiragroup.com
Phone No.- 0771- 4938401(O), M- +91 97555 22009.

Alok Ferro Alloys Limited. As a member of the Hira Group, one of the largest business conglomerates in Chhattisgarh, the company benefits from the group's extensive experience in diverse sectors such as power generation, sponge iron, steel production, ferro alloys, mining, and cement manufacturing. The group's deep expertise in project execution and cost-effective production methods further strengthens Alok Ferro Alloys Limited's position in the market.

The company is registered under the Companies Act of 1956 and continues to play a pivotal role in the Hira Group's portfolio by contributing significantly to the group's broader objectives of achieving operational efficiency and sustainable growth in the Ferro Alloys and steel manufacturing sectors.

Green vegetation cover offers numerous benefits for the environment and society. It aids in conserving biodiversity by providing habitats for various species. Additionally, it helps retain soil moisture, facilitating agricultural productivity and reducing erosion. Green cover also contributes to groundwater recharge, ensuring sustainable water resources. Moreover, it plays a crucial role in maintaining a pleasant microclimate in regions, offering shade and cooling effects. Overall, green vegetation cover is essential for ecological balance and human well-being.

Regulations/ Environmental Law for Green Belts Development in India:

The regulation and environmental laws pertaining to green belt development in India are primarily governed by the following:

1. Environment Protection Act, 1986 (EPA): This is the umbrella legislation for environmental protection in India. It empowers the central government to take measures for the protection and improvement of the environment. Under this Act,

Environmental Impact Assessment (EIA) is mandatory for certain projects including those affecting green belts.

2. Forest (Conservation) Act, 1980: This Act regulates the diversion of forest land for non-forest purposes, including for green belt development. It requires prior approval from the central government for such diversions.

3. Wildlife Protection Act, 1972: This Act aims to protect wildlife and their habitats. It prohibits certain activities within protected areas, which often include green belts.

4. Town and Country Planning Acts: Different states in India have their own town and country planning acts which regulate land use and development activities, including provisions for green belts.

5. Local Municipal Laws: Municipal laws and by-laws often include provisions for maintaining green spaces within urban areas.

6. National Green Tribunal (NGT): The NGT is a specialized body in India that handles cases related to environmental protection and conservation. It plays a crucial role in ensuring compliance with environmental laws, including those related to green belts.

7. Environmental Clearance: Projects that impact the environment, including those affecting green belts, require environmental clearance from the Ministry of Environment, Forest and Climate Change (MoEF&CC) or the State Environmental Impact Assessment Authority (SEIAA) depending on the scale of the project.

8. Land Acquisition Act, 2013: In cases where land needs to be acquired for green belt development, the Land Acquisition Act provides the legal framework for fair compensation and rehabilitation of affected persons.

9. Local Government Regulations: Municipal corporations and local governing bodies often have regulations pertaining to green spaces, parks, and open areas within their jurisdictions.

These laws and regulations collectively aim to ensure sustainable development while protecting and preserving green spaces and the environment in India. Compliance with these regulations is crucial for any development activities, including those involving green belts, to avoid legal complications and environmental damage.

This refers to environmental regulations or guidelines set forth by the Ministry of Environment, Forest and Climate Change (MoEF&CC) regarding the establishment of green belts around industrial plants. These regulations typically aim to mitigate the environmental impact of industrial activities by promoting the creation of green spaces.

According to the stipulations mentioned, a green belt must be established around the plant by planting trees. The total area of the green belt, including landscaping areas, should be one-third (33%) of the total plant area. This means that a significant portion of the plant area will be dedicated to greenery and landscaping to improve the environmental aesthetics and ecological balance.

Additionally, it is also mentioned to lay down areas that will be converted into green spaces later on. This suggests that there may be temporary areas within the plant site that will eventually be transformed into green zones as part of the overall green belt development.

Following these regulations will not only help in complying with environmental laws but also contributes to biodiversity conservation, air quality improvement, and overall environmental sustainability.

1. ABOUT PROJECT

M/s Alok Ferro Alloys Ltd. situated at Industrial area – Urla, RaipurDistrict – Raipur (C.G.)located in Industrial area – Urla, RaipurChhattisgarh, is an integrated Ferro Alloys plant equipped with advanced technology for the production of Ferro Alloys (through submerged arc furnace route) and Captive powerplants. Its Registered office is situated at Plot No. 458/1, 459 Urla Industrial area, Dist. – Raipur, State – Chhattisgarh India.

2. LOCATION OF PLANT AND ACCESSIBILLTY

The plant area of Alok Ferro Alloys Ltd.,is situated atIndustrial area – Urla, Raipur,Post- Birgaon, Raipur district, Chhattisgarh State. It's approximately 8 kilometers away from Raipur city and just 1.5 kilometers from Raipur – Bilaspurmain road. Access to the project site is facilitated by both bitumen roads. The Raipur railway station, located on the Mumbai-Howrah broad gauge mainline of the South-Eastern-Central Railway, is about 10 kilometers away from the project area. Additionally, the Swami Vivekananda International Airport is approximately 24 kilometers away from the Alok Ferro Alloys Ltd.

3. AREA DESCRIPTION

I	**Plant Premises Area**	**7.317 Ha. (18.08 Acre)**
II	**Existing Green Belt Area Inside plant premises**	**0.768 Ha. (1.89 Acre) @ 10. 5 %**
III	**Outside of Plant Premises Plantation Are** (Urkura site on Govt. Land & Birgaov Muktidham)	**2.22 Ha. (5.5 Acre) @ 30.42 %** Approx. (30% area of outside the plant premises) is developed as green belt.

4. GREEN BELT

Establishing an Environment Management Department (EMD) demonstrates M/s Alok Ferro Alloys Limited commitment to environmental responsibility and compliance with regulations set forth by the Ministry of Environment, Forest and Climate Change (MoEF&CC), Central Pollution Control Board (CPCB), and the Chhattisgarh Environment Conservation Board. The green belt development mandate in India aims to mitigate environmental impact, particularly in industrial sectors like steel production.

Alok Ferro Alloys Ltd's EMD likely oversees various pollution control measures, including but not limited to:

1. Implementing technologies for reducing emissions of pollutants such as particulate matter.
2. Monitoring air, water, and soil quality to ensure compliance with regulatory standards.
3. Managing waste generated during the steel production process, including hazardous and non-hazardous waste, through proper disposal or recycling methods.
4. Developing and maintaining green belts or vegetative barriers around the industrial facility to mitigate air and noise pollution, improve aesthetics, and provide ecological benefits such as biodiversity conservation and soil stabilization.
5. By establishing an EMD, Alok Ferro Alloys Ltd. not only fulfils its legal obligations but also demonstrates a proactive approach to environmental stewardship and sustainable business practices. This department plays a crucial role in ensuring that the company operates in harmony with its surroundings while minimizing its environmental footprint.

The Green Belt helps to capture the fugitive emission and attenuate the noise apart from improving the aesthetics of the region. Of total area (18.08 acres approx.) of the project site, 40 % area (7.232 acres) shall be developed as green belt all along the boundary of the plant, in blocks and other available spaces. Development of green belt and other forms of greenery in and around plant site and plantation in the nearby hill and village are helpful to improve ecological conditions and biodiversity status of the area.

Survey and Evaluation work was allotted by M/s Alok Ferro Alloys Ltd, Industrial area- Urla, Raipur (C.G.)to our organization "Society for Environment & Integrated Development Raipur" vide Service order no. FERRO/24-25/SO/0102 Dated 30.07.2024.

5. EVALUATION OF PLANTATION

Evaluation of Plantation needs to be done by the Industrial units for Existing Plantation within plant premise & nearby areas as per stipulations made by MoEF & CC, New Delhi and CECB, Raipur in its permissions granted to the company as also directions received from the Regional offices time to time.

6. PROJECT OBJECTIVE

Plant Species act as bio-monitoring agent to monitor the air environment as well as it keeps and maintains the project environment healthy by providing more oxygen. The two areas of air pollution i.e. gases and dust need to be urgently attended by using plants. Keeping this in mind, pollution abatement measures have been suggested to develop green belt based on local and physical conditions of the areas by taking the cognizance of "**Greening with Purpose drive**".

7. PLANTATION DETAILS

M/s Alok Ferro Alloys Ltdis working diligently on its tree plantation efforts within and outside the plant premises. Apart from gap filing, a total of 7647saplings were planted in the year from 2007 to 2024, in an area of about 2.97Ha. (7.39 Acre)They have exceeded the statutory requirement of developing 33% of the total land area as a green belt. This demonstrates their commitment to environmental conservation and sustainability.

8. Table: 1 Details of year wise plantation inside plant premises

S. n.	Plantation years	Area In Acre out of total Project Premises (18.08 Acre)	Total planted plants	Total Survival plants	Survival %
1.	**2007-2024**	**1.89**	**1517**	**1088**	**72%**

9. Table: 2 Details of Outside Plantation: Birgaon Muktidham.

S. n.	Total planted plants	Allotted Are by Nagar Nigam (in Acre)	PLANTED AREA In Acre	Total Survival plants	Survival %
1.	**2130**	**3.8**	**1.5**	**1816**	**85%**

10. Table: 3 Details of Outside Plantation: Urkura Govt. Land.

S. n.	Total planted plants	Allotted Are by Nagar Nigam (in Acre)	PLANTED AREA In Acre	Total Survival plants	Survival %
1.	**4000**	**4**	**4**	**3274**	**82%**

11. Table No. 4 M/s Alok Ferro Alloys Ltd. Total No. of Planted Plants Plant premises& outside and during Survey Survival plants and percentage:

S. n.	Total planted Plants Plant premises & outside	Total no. of survival plants	Survival %	Area covered as Green belt
1.	**7647**	**6178**	**81%**	**6.10 Acres**

12. PLANTATION SITES

Plantation work has been done along the plant boundary, inside the plant premises, roadside and the nearby hill area. Plantation survey has been carried out by our expert team with the help of M/s Alok Ferro Alloys Ltd. Management and office staff. Following plantation sites have been planted by M/s Alok Ferro Alloys Ltd.

A. Plant premises

1. Temple Garden surrounding area.
2. Admin. Building area.
3. Main gate to power plant road both side.
4. C H P area
5. Old CHP area
6. Power Plant Coal area
7. Mechanical Gate area
8. Along with all boundary wall side.
9. Road Side Boundary wall area.

Part - B

1. PHYSICAL VERIFICATION OF PLANTATION (GREEN BELT) AND EVALUATION REPORT

2. METHODOLOGY

- Counting- All plants, Trees and sapling of all sites are counted.
- Measurement – Average Height of Trees, Plants and Sapling are taken randomly.
- Measurement are Recorded. Photographs have been taken so as to show real picture of plantation.
- Plantation at the site. Details of species are also noted.

Upon survey (Physical verification) by our team, we found that for the year 2007-2024, 7647 nos. plants, saplings have been planted by Alok Ferro Alloys Limited, out of which 6181 has survived. The measurements of the plants are given in table below:-

3. Planted Species and Measurements

M/s Alok Ferro Alloys Limited, (Plant Premises)(2007-24)							
s. n.	Species	Average		Maximum		Minimum	
		Girth (cm)	Height (m)	Girth (cm)	Height (m)	Girth (cm)	Height (m)
1.	Alastonia	49.2	8.92	80	12	35	4.50
2.	Conocarpus	12.63	4.21	24	5.50	4	1.70
3.	Jamun	20	3.05	40	6.50	5	1.80
4.	Neem	37.4	5.55	130	14	6	1.50
5.	Semal	29.75	4.31	45	6	15	2.50
6.	Ashok	12.37	4.06	20	5.50	10	2.00
7.	Mango	16.18	2.42	25	4	4	0.50
8.	Badam	41.12	6.47	135	12	30	4.00
9.	Mayurpankhi	12.83	3.48	18	5	8	2.00
10.	Bottle Palm	1.09	10.8	140	13	.80	9.00
11.	Pipal	38.8	4.82	90	7	6	1.70
12.	Sagoun	37.4	2.43	75	6	12	1.80
13.	Sitaphal	8.6	1.21	18	3.50	5	1.60
14.	Kaner	12.38	2.16	20	4	5	1.00
15.	Coconut	37.25	4.23	85	8	12	2.50
16.	Tecoma	9.88	1.52	15	2.20	6	0.90
17.	Bargad	16.07	2.56	30	5.50	6	0.80

18.	Sisu	37.11	4.22	70	7.50	15	2.00
19.	Karanj	13.68	2.05	32	3.50	6	0.80
20.	Ganga Imali	51.11	5.16	80	6	35	4.00
21.	Shisham	10.6	1.42	30	2.50	3	0.70
22.	Chind	6.05	4.02	78	5	4	2.50
23.	Arjun	28.73	3.03	80	6	10	1.00
24.	Khamar	19.07	3.77	35	6.00	6	1.30
25.	Mahoguni	19.75	3.08	30	4.50	10	2.00
26.	Amaltas	19.8	2.46	30	3.50	10	1.50
27.	Gumohar	44.8	5.8	110	10	12	2.00
28.	Moulshri	25.78	3.48	45	6	12	1.80
29.	Bogunvelia	18.50	3	20	3.50	8	2.00
30.	Ficus	11.66	1.48	18	2.50	5	0.70
31.	Acacia	12	1.95	30	4.50	6	1.30
32.	Munga	15	7.00	28	8.50	8	2.50

4. Planted Species and Measurements

Alok Ferro Alloys Limited, (Urkura Govt. Land)(2023-24)							
s. n.	Species	Average		Maximum		Minimum	
		Girth (cm)	Height (m)	Girth (cm)	Height (m)	Girth (cm)	Height (m)
1.	Badam	8.18	2.15	12	3.00	4	1.70
2.	Neem	12.7	2.16	18	3.80	12	1.60
3.	Mahoguni	8.7	2.14	12	3.10	5	1.35
4.	Kadamba	8	2.34	10	2.60	6	2.00
5.	Conocarpus	8.88	2.74	10	3.00	8	2.00
6.	Pipal	8.3	2.26	10	3	5	1.70
7.	Jam (Guava)	8.76	1.18	14	2.60	5	0.45
8.	Arjun	8.81	2.84	14	3.20	5	1.20
9.	Karanj	8.72	2.43	10	3.10	6	1.80
10.	Moulshri	4.90	1.54	8	1.80	4	1.35
11.	Kachnar	7.18	1.90	16	2.70	5	0.80
12.	Bargada	10.75	2.50	16	3.50	6	1.50
13.	Gulmohr	10.2	2.64	12	3.50	6	1.70
14.	Siris (Black)	7.7	1.83	14	2.50	4	1.20
15.	Peltophorum	11.11	28.8	14	4	8	2.20
16.	Bouganivillea	4.6	1.16	6	2.50	3	0.35

5. Planted Species and Measurements

Alok Ferro Alloys Limited, (BirgaonMuktidham)(2024-25)							
s. n.	Species	Average		Maximum		Minimum	
		Girth (cm)	Height (m)	Girth (cm)	Height (m)	Girth (cm)	Height (m)
1.	Pipal	45.33	4.62	90	12	2	.30
2.	Ashok	10.83	2.91	15	5	6	1.50
3.	Conocarpus	3.90	1.18	5	4.50	3	0.50
4.	Mahoguini	16.71	3.42	25	6	8	1.00
5.	Bargad	55	3.23	2.50	7	3	0.70
6.	Bel	4.4	0.73	8	1.80	3	0.25
7.	Peltophorum	45.42	4.14	70	7	20	2.00
8.	Champa	21.12	3.31	35	5	12	2.00
9.	Kaner	2.55	063	3	0.70	2	0.45
10.	Sisu	2.63	0.90	5	1.50	2	0.50
11.	Aonla	3.9	0.97	14	4.50	2	0.30
12.	Kadamba	5	1.13	6	1.80	4	0.80
13.	Siris	25.7	3.9	1.10	12	6	1.20
14.	Khamar	21.42	3.57	38	6.50	10	1.50
15.	Sitaphal	3.62	1.23	8	3	2	0.45
16.	Kaner	9	1.8	15	2.1	5	1.60
17.	Mango	8.76	2.23	14	3.60	10	1.45
18.	Boguinvelia	5.00	1.60	12	2.80	5	0.45
19.	Neem	6.44	1.56	18	4.50	3	0.80
20.	Gulmohar	18.3	2.5	32	3.5	10	1.5
21.	Guava (Jam)	2.22	0.63	3	0.90	2	0.30
22.	Kesiasamia	2	0.78	2	1.20	2	0.40
23.	Kachnar	2	0.46	4	0.60	2	0.30
24.	Raintree	3.25	0.90	3	1.20	2	0.60
25.	Other Misc.	48.12	5.68	80	8.50	30	3.00

4. PLANTED SPECIES, PLANTS NUMBER AND PERCENTAGE

Planted Species, No. of planted plants, Survival plants no. and percentage				
S. N.	PLANTED SPECIES	No. of planted species	Survival as per survey	Survival (%)
1.	Alastonia, Conocarpus, Guava, Jamun, Neem, Semal, Ashok, Mango, Badam, Mayurpankhi, Bottle Palm, Pipal, Teak, Sitaphal, Kaner, Peltophorum, Coconut, Tecoma, Bargad, Sisoo, Dumar, Karanj, Shisham, Chind, Ganga Imali, Arjun, Bogunvelia, Siris Black, Kesiasamia etc.	7647 (2007-24)	6178	81%
	Total =	7647	6178	81%

In order to mitigate and minimize the environmental impacts arising due to the project, especially from air pollution, noise pollution, soil erosion etc. During Audit M/s SEIDR has found that A dense greenbelt has been developed all around the Existing site. Approx. 7683.81 sqm i.e. 10.5% of the area is developed as a green area within the plant premises and 21974.4 sqm i.e., approx. 30 % of the total plot area is developed outside the plant. Hence Project Proponent 40 % (7.232 Acre) area has been marked for greenbelt development in respect of total project Area (18.08 Acre).

5. GRADING OF PLANTATION :- GRADE CARD

a. Alok Ferro Alloys Limited.

Grading of project plantation on scale of 1 to 10

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

b. Grading of Project plantation on scale 1 to 10

Overall Grading of Plantation	Outstanding (Excellent) (8<10)	Very Good (5<8)	Good (3<5)	Poor (>3)
	8.12			

6. DISCUSSION WITH MANAGEMENT AND STAFF AS UNDER –

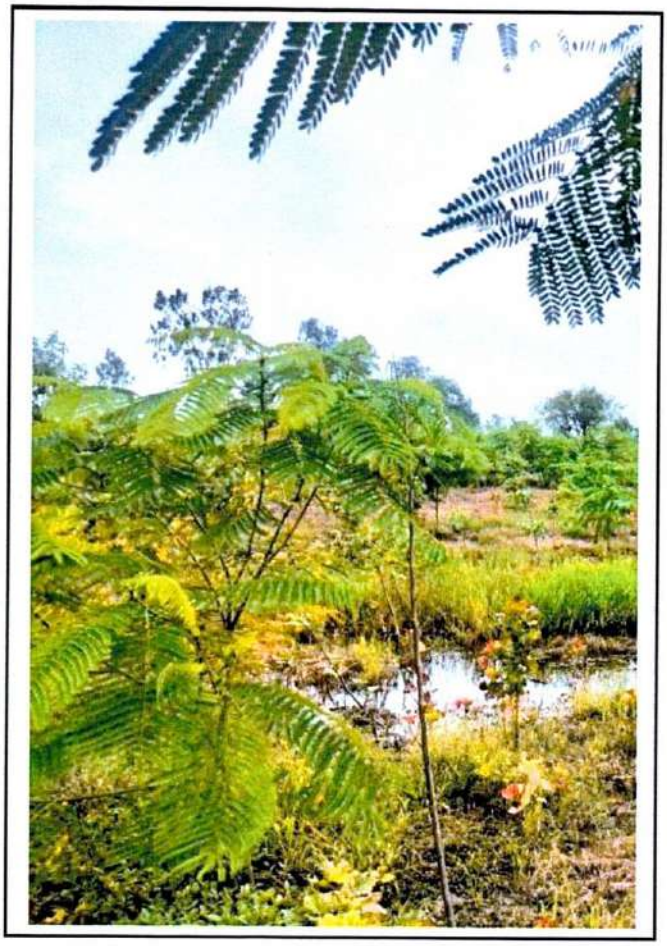
1. Mr. VinayAgrwal : Director
2. Mr. Ajay Dubey : Director
3. Mr. NiketKhandelwal : G M Corporate Affairs
4. Mr. Tarun Kumar : Asst. Manager Corporate Affairs

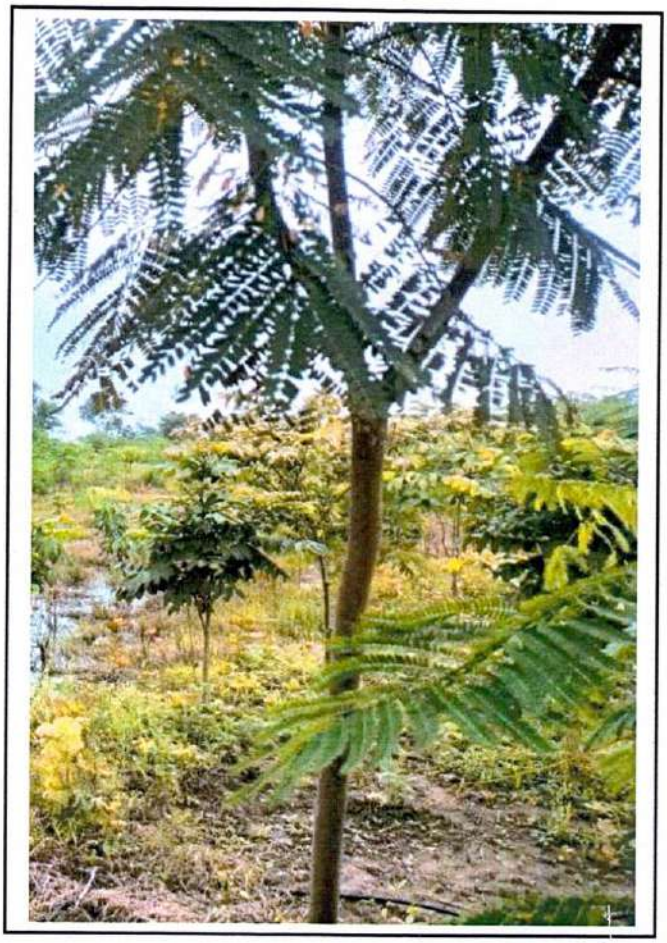
7. SUGGESTION FOR IMPROVEMENT

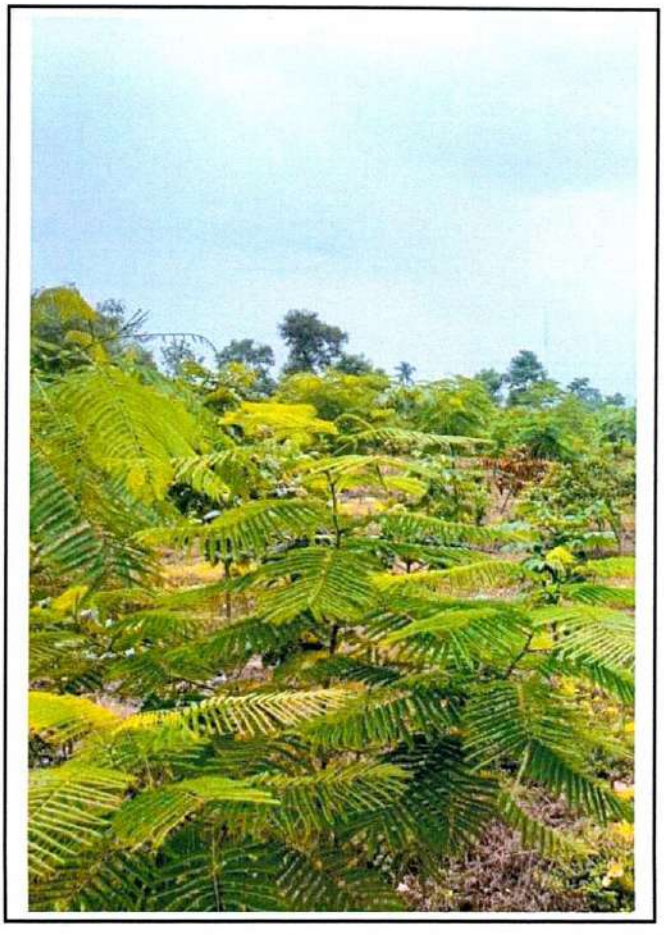
1. Plants to be planted not less than one year in age and 01 meter height.
2. Space 2M×2M, 3M×3M and maximum 4M×4M according to maximum girth of trees after maturity.
3. Species – Fast growing to be planted.
4. Given priority to broader leaves plants.
5. Species may be chosen as under – Khamar, Shisham, Teak, Kadamba, Acacia, Peltophorum,Neem, Nilgiri, Peepal, Amaltas, Karanja, Gulmohar, Mahaneem, Jamun, Ashoka, Arjuna, Bottle pam, Badam, Kadamba, Bamboos etc.
6. Increase irrigation facility to more number of plants.
7. Soils of pits should be changed in hard soil area.
8. Plants to be planted regularly every year including mortality replacement.
9. Germination Time – Humic oxide can be used for better results.
10. Manure – Compost, Vermi compost, DAP, Zhaim also to be used.
11. Termite and Other pests control – Cholorocyper, Imida combine.
12. Planting work to be done in June and July.
13. Mortality should not be counted for increase in area.
14. It is compulsory to have a water pipe line for the proper growth of the planted plants.

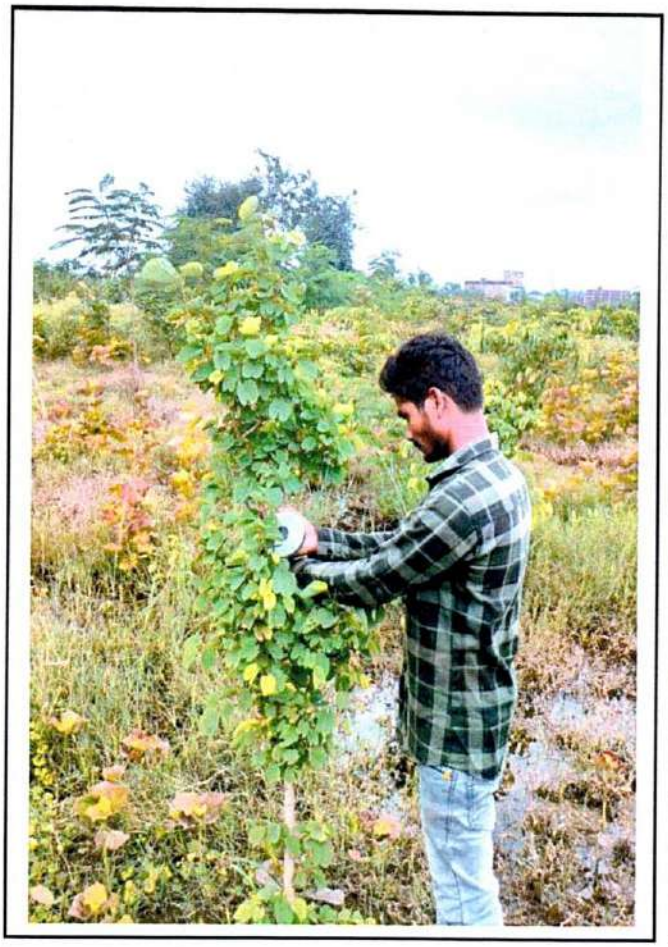
8. PICTURES OF PLANTATION

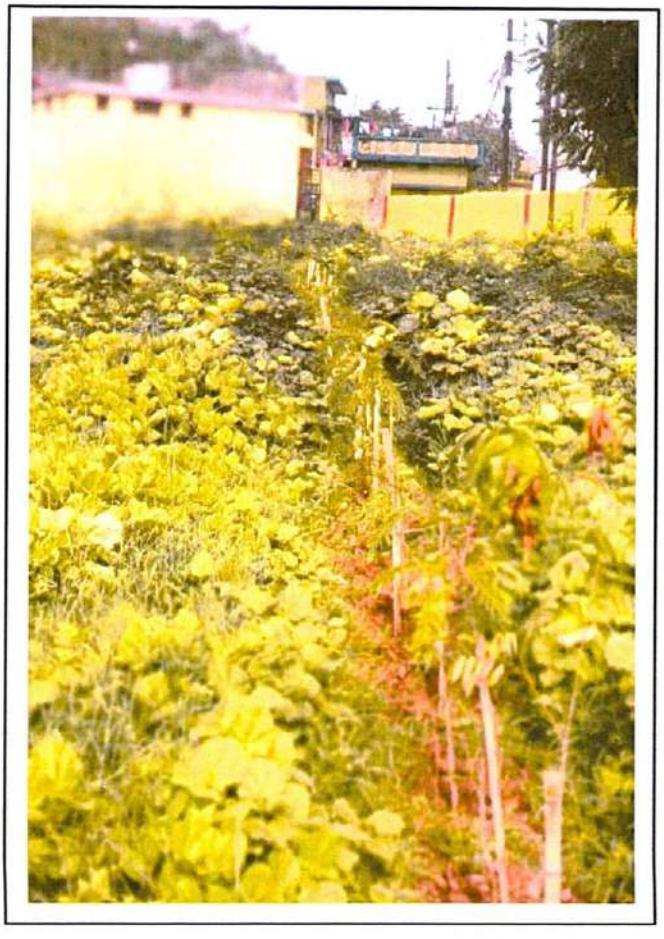
SOCIETY FOR ENVIRONMENT & INTEGRATED DEVELOPMENT RAIPUR ★ SEIDR

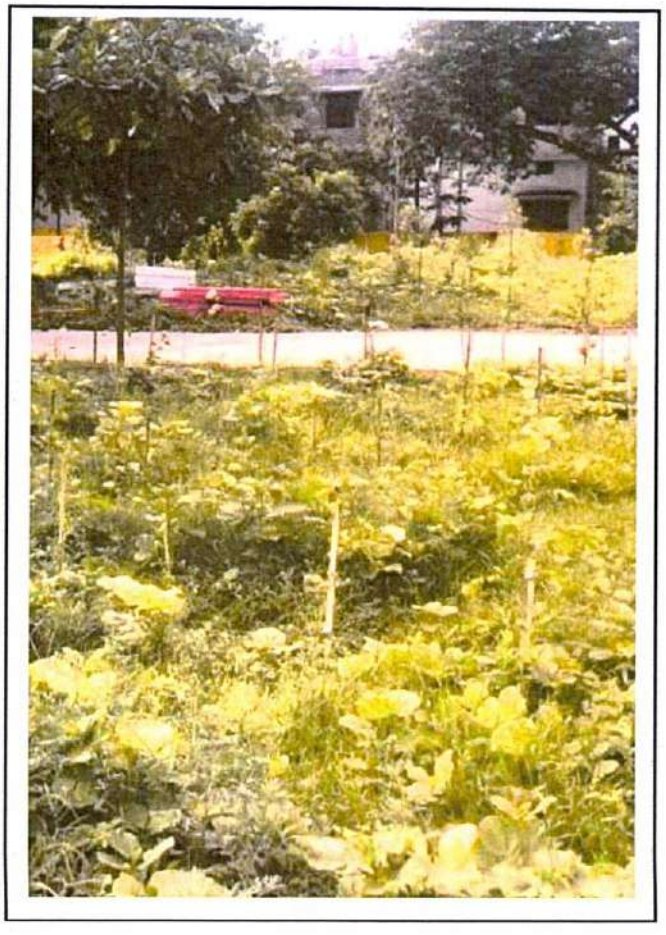




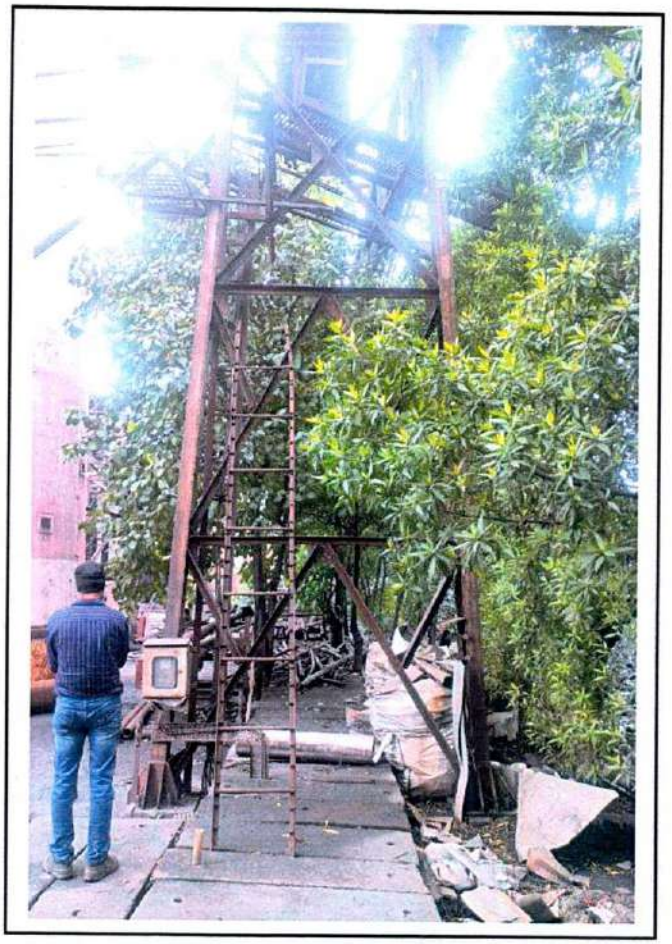








ALOK FERRO ALLOYS LTD.
ENVIRONMENT POLICY
ALOK FERRO ALLOYS LTD.
HEALTH & SAFETY POLICY



HIRA
वृक्षारोपण – अभियान

A WORD OF APPRECIATION

We appreciate all management officers and staff of M/s Alok Ferro Alloys Limited, who have taken steps to develop the green belt & greenery of area. We found that saplings have been taken care well after plantation. We appreciate the commitment and the effortsmade by the management for developing the green belt and greenery within & outside the plant premises.

"SEIDR"

(Society for Environment & Integrated Development Raipur)

Chhattisgarh

THE TEAM INVOLVED IN SURVEY & EVALUATION

S.No.	Name	Job	Experience
1.	Shri S. K. Roy	Head of Team	42 years experience of forest work (Retd. A.C.F. Chhattisgarh Forest)
2.	ShriD. K. Tiwari	Team Leader	18 years' experience of forest related work
3.	ShriKamleshDubey	Coordinator	8years' experience of monitoring & evaluation & micro planning
4.	ShriJashvir Singh Virdi	Investigator	7years' experience of monitoring & evaluation

EXECUTIVE BODY OF "SEIDR"

S.No.	Post	Name	Experience
1	President	Shri S.K. Roy	Retd. A.C.F. C.G. Govt.
2	Vice President	Smt. Shobh Mishra	Professional
3	Secretary	Smt. AshaTiwari	Professional
4	Join Secretary	KamleshDubey	Professional
5	Treasurer	Shri D.K. Tiwari	Professional

ABOUT THE EVALUATION AGENCY

Organization profile

Name of Organization	*"Society for Environment & Integrated Development Raipur"*
Status	*Non-Government Organization {NGO} and working as Development and welfare.*
No. & Date of registration	*C. G. State – 3270. Date – 01/03/2011*
Registration	*Under Society Registration Act. – 1973.*
Resource Centre Address: -	*J-9/A, ShriRam Nagar, Phase –I, Street – II, Post Office Shankar Nagar Raipur (C.G.) Pin Code – 492004.*
Phone: -	*+91- 771-3587611*
Chief Functionary	*Mr. S. K. Roy (Retd. Forest A.C.F. C.G. Forest) Mob. No. 094255 – 02223*
Contact Person	*Mr.D. K. Tiwari (Contact Person) Mob. No. 98261 – 86813, 96695 - 77114*
Mail at	seidraipur@gmail.com
Bank with	*State Bank of India, Vip Estate colony Raipur (C.G)* *Account No. – 35731546062 (Current A/C)* *IFS Code - SBIN0013004, PAN - AAHAS3608L*

SEIDR MISSION

The mission statement you provided for SEIDR focuses on empowering marginalized communities, especially tribes, women, and those striving for equality, to unlock their creative potential and resources. The mission emphasizes enabling these groups to fully and effectively engage in the social, economic, political, and cultural life of society and the nation in a sustainable way. This approach is centered on inclusion, equity, and long-term participation, aligning with broader goals of social justice and community development.

SEIDR VISION

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

Area of Operation

Intensively in all districts of Chhattisgarh state, with trainedtechnical and professional staff.

OTHER MEMBER OF EXECUTIVE BODY

S. No.	Name	Experience
1	Laxman Prasad Murchulia	Retd. Forester
2	PrabhatPandey	Electrical Engineer
3	AkhilShrivastava	Professional
4	VarunTiwari	Labour Court Lawyer
5	Smt. Nirmala	Labour Court Lawyer
6	Moh. Jabbar	Businessman
7	PradeepSahu	Professional

THANK YOU

****

SUPPORTING DOCUMENTS:

कार्यालय नगर पालिक निगम, बीरगांव जिला-रायपुर (छ.ग.)

Email id: birgaonmcp@gmail.com http://www.nagarnicambirgaon.com

क्रमांक / 2605 /न.पा.नि./भ.अनुज्ञा/सी.एस.आर./वृक्षा.–2020–21 बीरगांव,दिनांक 08/02/2021

प्रति,

प्रबंध संचालक
आलोक फेरो एलॉयस लिमिटेड
उरला, रायपुर छ.ग.

विषय :– सी.एस. आर. मद से आक्सीजोन बनाने/वृक्षारोपण करने तथा समुचित रखरखाव बाबत्।

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विषयान्तर्गत एन.जी.टी. के निर्देशानुसार प्रदूषण नियंत्रण एवं हरियर छत्तीसगढ़ हेतु CSR मद से प.ह.नं. 108/40, खसरा नं. 341 मौजा उरकुरा स्थित शासकीय भूमि रकबा लगभग 18 एकड़ क्षेत्र वृक्षारोपण हेतु उपयुक्त है। उसमे से 04 एकड़ क्षेत्र में ऑक्सीजोन बनाने/वृक्षारोपण करने तथा समुचित रखरखाव करने का अनुरोध है।

संलग्न :– प.ह.नं. 108/40, खसरा नं. 341 मौजा उरकुरा स्थित शासकीय भूमि रकबा लगभग 18 एकड़ नक्शा खसरा की प्रति।

आयुक्त
नगर पालिक निगम, बीरगांव
जिला–रायपुर (छ.ग.)

पृ. क्रं./ 2606 /न.पा.नि./भ.अनुज्ञा/सी.एस.आर./वृक्षा.–2020–21 बीरगांव,दिनांक 08/02/2021

प्रतिलिपि :–

01. कलेक्टर, जिला–रायपुर छ.ग. की ओर सादर सूचनार्थ सम्प्रेषित।

आयुक्त
नगर पालिक निगम, बीरगांव
जिला–रायपुर (छ.ग.)

कार्यालय नगर पालिक निगम, बीरगांव जिला-रायपुर (छ.ग.)

Email Id: birgaonmcp@gmail.com http://www.nagarnigambirgaon.com

क्रं./ 821 /न.पा.नि./सी.एस.आर./वृक्षा.–2024–25 बीरगांव,दिनांक 29/05/2024

/ /प्रमाण–पत्र/ /

—000—

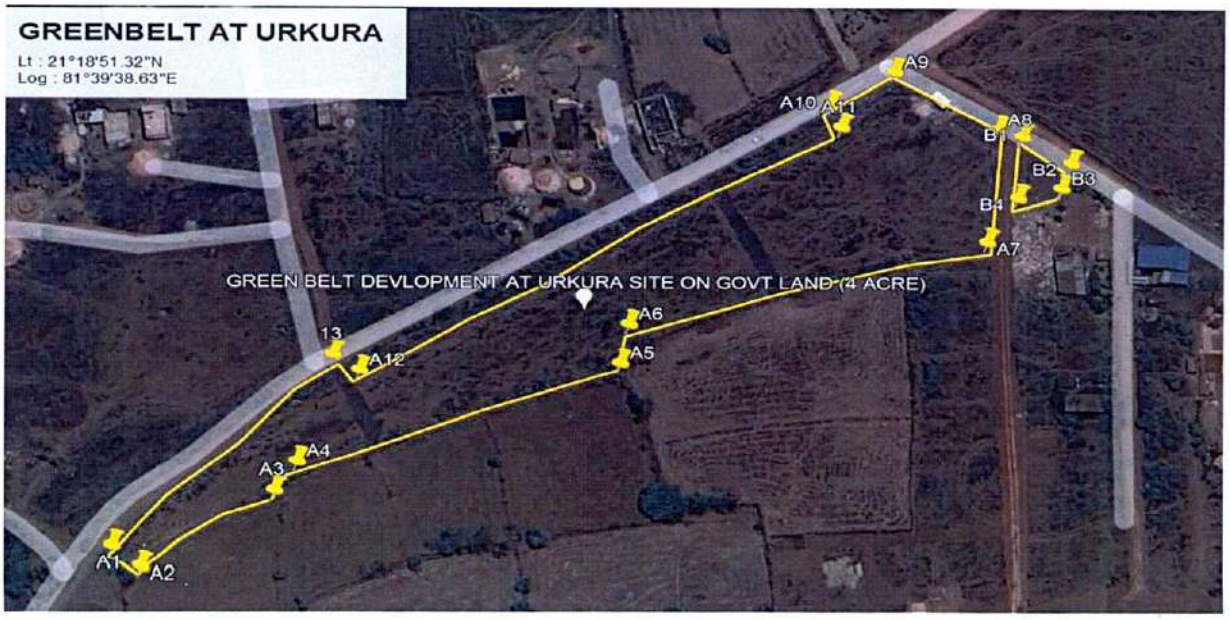
प्रमाणित किया जाता है कि **आलोक फेरो एलॉयज लिमिटेड, उरला इण्डस्ट्रियल काम्प्लेक्स, उरला** द्वारा मान. एन.जी.टी. के आदेश के परिपालन में पर्यावरण संरक्षण–संवर्धन एवं हरियर छत्तीसगढ हेतु CSR मद से प.ह.नं. 108/40, खसरा नं. 341 मौजा उरकुरा स्थित शासकीय भूमि रकबा लगभग 18 एकड़ में से लगभग 4.00 एकड़ क्षेत्र में ऑक्सीजोन/वृक्षारोपण कार्य पूर्ण कर समुचित संधारण किया जा रहा है। कार्य संतोषप्रद है।

पर्यावरण संरक्षण–संवर्धन हेतु कंपनी के उक्त कार्य की सराहना करते हुये हम कंपनी के उज्जवल भविष्य की कामना करते हैं। आशा है आगे भी पर्यावरण संरक्षण–संवर्धन की दिशा में कार्य करते रहेंगे।

आयुक्त
नगर पालिक निगम, बीरगांव
जिला–रायपुर (छ.ग.)

प्रति,

प्रबंध संचालक
आलोक फेरो एलॉयज लिमिटेड
उरला इण्डस्ट्रियल कॉम्प्लेक्स, उरला



कार्यालय नगर पालिक निगम, बीरगांव जिला-रायपुर (छ.ग.)

Email Id: birgaonmcp@gmail.com http://www.nagarnigambirgaon.com

क्रं./1134 /न.पा.नि./सी.एस.आर./वृक्षा.–2024–25 बीरगांव दिनांक 07/06/2024

प्रति,

प्रबंध संचालक
आलोक फेरो एलॉयज लिमिटेड
इण्डस्ट्रियल एरिया उरला

विषय :– सी.एस.आर. मद से मुक्तिधाम बीरगांव में वृक्षारोपण एवं उन्नयन कार्य/सौंदर्यीकरण कार्य कर संधारण करने बाबत्।

संदर्भ :– 01. आपका पत्र क्रं. AFAL/2024-25/CA/21/दिनांक 16.05.2024

—000—

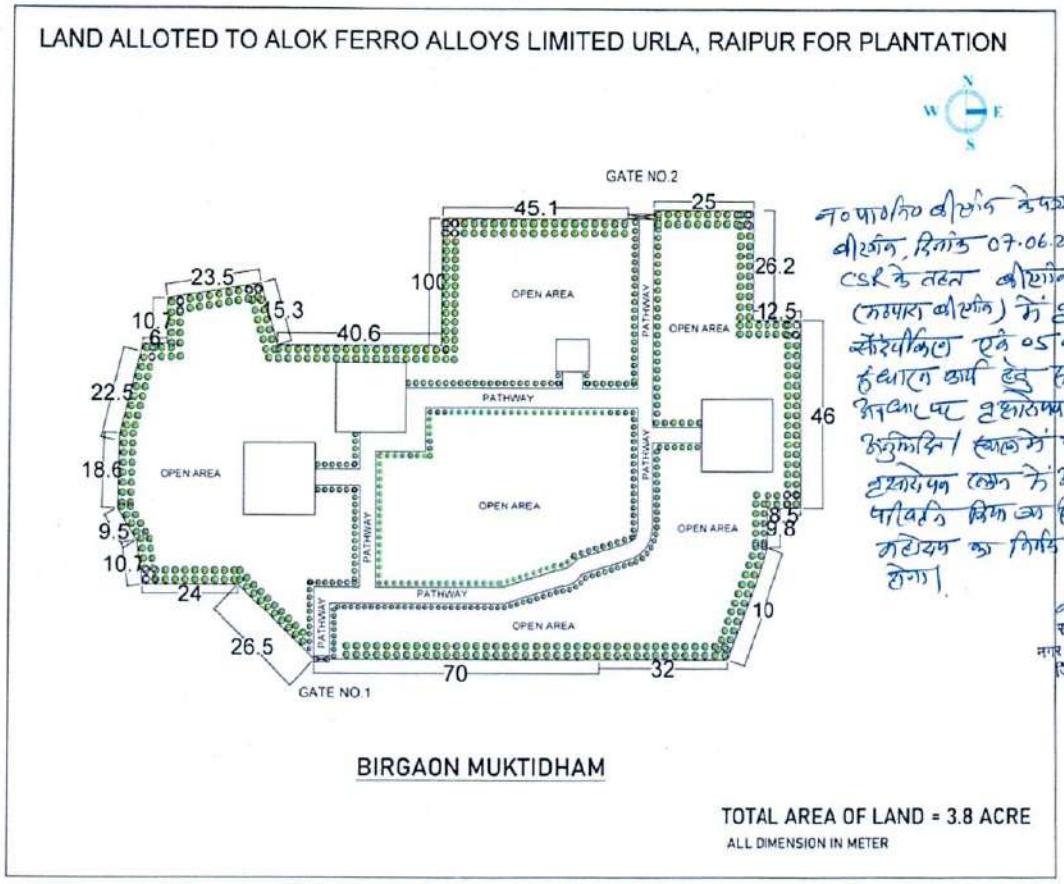
मान. एन.जी.टी. के आदेश के परिपालन में निकाय क्षेत्र में पर्यावरण संरक्षण संवर्धन हेतु आपके द्वारा प्रस्तुत संदर्भित पत्र के आधार पर सी.एस.आर. मद से मुक्तिधाम बीरगांव में वृक्षारोपण एवं उन्नयन कार्य/सौंदर्यीकरण कार्य कर न्यूनतम 05 वर्षों तक समुचित संधारण करने की सहमति प्रदान की जाती है।

अयुक्त
नगर पालिक निगम, बीरगांव
जिला–रायपुर (छ.ग.)

पृ.क्रं./ /न.पा.नि./सी.एस.आर./वृक्षा.–2024–25 बीरगांव दिनांक ...../...../2024
प्रतिलिपि,

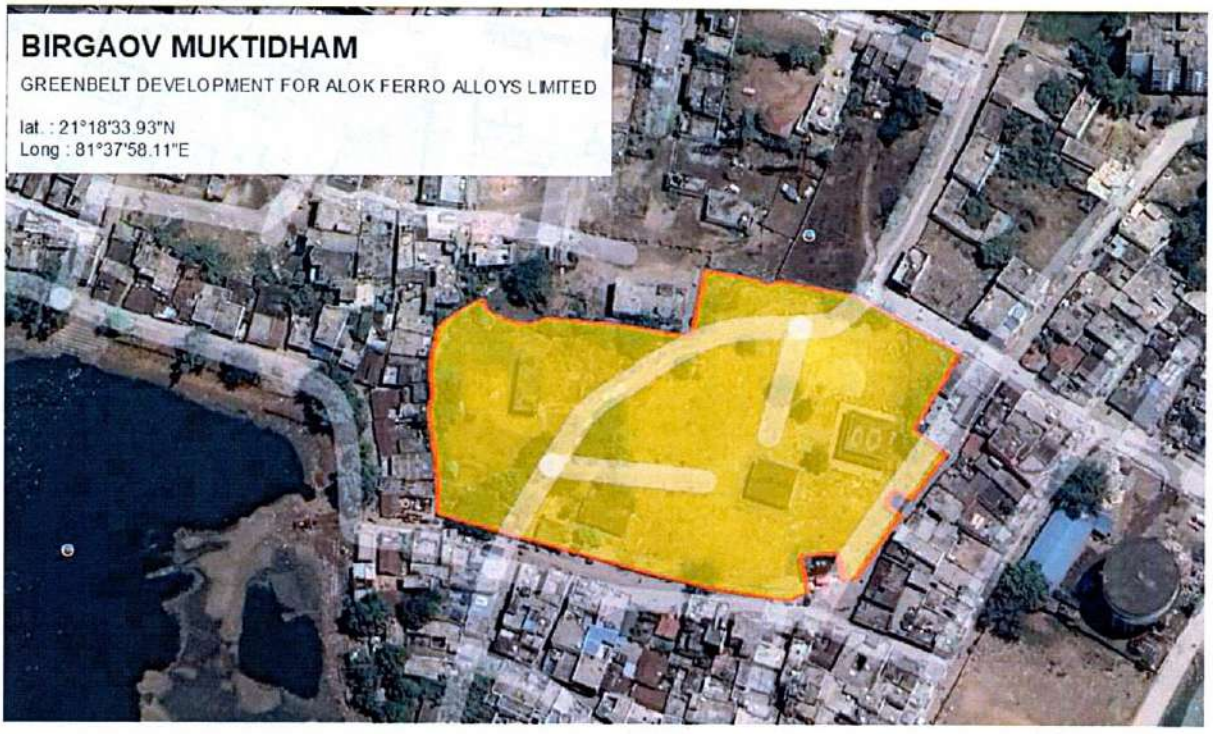
01. कलेक्टर, जिला–रायपुर (छ.ग.) की ओर सादर सूचनार्थ सम्प्रेषित।
02. सर्वसंबंधित कार्यपालन अभियंता/सहा. अभियंता/उप अभियंता नगर पालिक निगम बीरगांव को आवश्यक कार्यवाही हेतु सूचनार्थ।

आयुक्त
नगर पालिक निगम बीरगांव
जिला–रायपुर (छ.ग.)



नगर पालिक निगम बीरगांव के पत्रांक-/1134/ बीरगांव, दिनांक 07.06.2024 द्वारा CSR के तहत बीरगांव मुक्तिधाम (मरघा बीरगांव) में वृक्षारोपण, कॉरीबाउंड एवं 05 नग्गी लगे हुए स्थान की हुई मांग के अनुसार वृक्षारोपण कार्य / विकास अनुमोदित / स्वीकृत किया जाता है। वृक्षारोपण कार्य के आगामी कार्यक्रम पार्षद क्षेत्र के अनुसार किया जाना है। संयुक्त कार्यालय का निर्णय अंतिम व बंधनकारी होगा।

सहायक अभियंता
नगर पालिक निगम, बीरगांव
जिला-रायपुर (छ.ग.)
18/06/2024



PATEL RAIN WATER HARVESTING

BHUPENDRA KUMAR (GEO –HYDROLOGIST) M.SC IN GEOLOGY

Reg: GEOHYDROLOGIST IN RAIPUR MUNICIPAL CORPORATION & INDIAN ASSOCIATION OF HYDROLOGIST (ROODKI)

ADD: - GANESH CHOWK WARD NO – 03, PATEL PARA KUMHARI, DIST. DURG (C.G.) MOB – 9827859411, 8839136051

CERTIFICATE NO – BK/RWH/53/2024 **DATED –21/08/2024**

COMPLETION CERTIFICATE OF RAIN WATER HARVESTING

OF **ALOK FERRO ALLOYS LIMITED**, SITUATED AT PLOT NO. 458/1 & 459, URLA INDUSTRIAL AREA,RAIPUR (C.G.)

As per the discussion and visual inspection of the plant, 2 Nos. Rain Water Harvesting and 2 Nos. Of Soak pit have been constructed inside the plant premises. In which Approx. 13438 KL/year water is being recharge into the ground water through injection well through horizontal connected pipe with "V" wire filter Unit.

All the Injection well and Recharge well have been Constructed by ***M/s S A Construction*** under the Guidance & designed by ***Hydrologist Mr.Bhupendra Kumar*** and Co-ordination with Civil Engineer - ***Er. Virendra Verma***. All the Recharge and Injection Well are successfully Operational.

CALCULATION OF TOTAL QUANTUM OF AVAILABLE RUNOFF (CUM/Y)

ESTIMATION OF QUANTUM OF RUNOFF AVAILABLE THROUGH RAIN WATER HARVESTING (WITHIN PREMISES) SHEET					
S.No.	Particulars	Area (Sqm) (To be filled)	Rain fall (m) (To be filled)	Runoff Coefficient*	Quantum of Run off available (Cum/Year)
	1	2	3	4	5 (2*3*4)
1	Roof Top of building/Shed /	28766.34	0.9	0.85	22006.25
2	Road/Paved area	9725.40	0.9	0.65	5689.36
3	Open Land	27036.51	0.9	0.20	4866.57
4	Green Belt	7641.75	0.9	0.15	1031.64
5	Total (sqm)	73170	Total Quantum of available runoff (cum/y)		33,594
* Ref: Manual of Artificial Recharge of Ground Water, (CGWB,2007)					

[HYDROLOGIST]

BHUPENDRA KUMAR
Reg. Geo-Hydrologist &
Rain Water Harvesting Consultant
Licence No.: 900/2017-18
Membar of IHA Roorkee, LM 1938

OUR SERVICES

All kind of Rain Water Harvesting, Ground Water Searching by Geophysical Methods, CGWB Noc, Geological Report, bore well logging, piziometer installation, Flow Meter Installation, Water Purify Systems, Water Treatment Services, Mining Plan for Minor/ Major Minerals, Environmental Plan Consultant.

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In Rainy season, out of total Quantum of available Runoff (Cum/Year), 60 % (20156.4 cum) Of water is lost due to evaporation/run off and soil absorption and minimum of 13437.60 Cum/Year of assumed Quality of water can be recharged into the ground water source.

Proposed

1 NoRain Water Harvesting Pit has been proposed for our EC Expansion Proposal.

Drawing of Constructed and Proposed Injection Well and Recharge Well Enclosed.

Following precautionary measures should be taken while harvesting rainwater:-

- Roof or terraces uses for harvesting should be clean, free from dust, algal plants etc.
- Do not store chemicals, rusting iron, manure or detergent on the roof.
- Filter media should be cleaned before every monsoon season.
- This system Work in Rainy Season only (July – Nov.)
- Save Water – Save Life.

[HYDROLOGIST]

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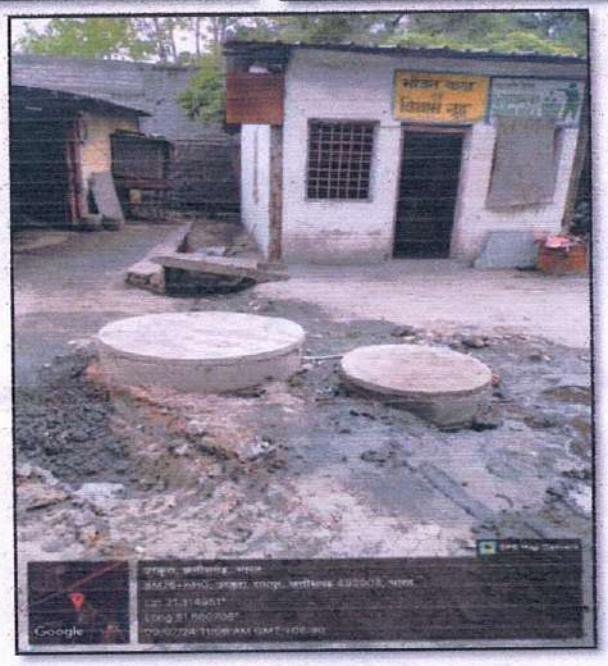
ADD: - GANESH CHOWK WARD NO – 03, PATEL PARA KUMHARI, DIST. DURG (C.G.) *MOB – 9827859411, 8839136051*

SITE PHOTOGRAPHS:- *NEAR DM PLANT.*



[HYDROLOGIST]
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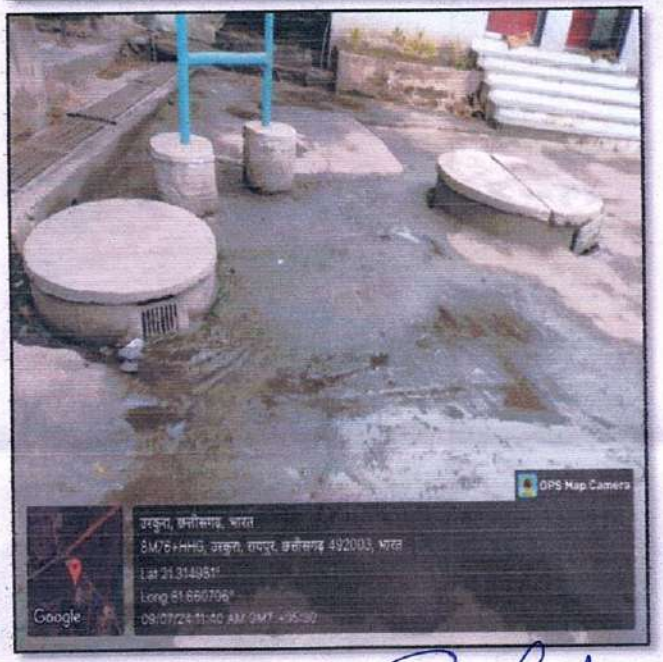
ADD: - GANESH CHOWK WARD NO – 03, PATEL PARA KUMHARI, DIST. DURG (C.G.) *MOB – 9827859411, 8839136051*

SITE PHOTOGRAPHS:- *NEAR MAIN GATE.*



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PATEL RAIN WATER HARVESTING

BHUPENDRA KUMAR (GEO –HYDROLOGIST) M.SC IN GEOLOGY

Reg: GEOHYDROLOGIST IN RAIPUR MUNICIPAL CORPORATION & INDIAN ASSOCIATION OF HYDROLOGIST (ROODKI)

ADD: - GANESH CHOWK WARD NO – 03, PATEL PARA KUMHARI, DIST. DURG (C.G.) *MOB – 9827859411, 8839136051*

SOAK PIT :

Soak Pit has been constructed at Near DM Plant Area having Size is 1.5 m length x 1.2 m Breadth x 1.5 m Height from that Recharge system they have saved Approx 300 cub meter Rain Water per Annaum. Now the System is Working Properly.

Necessary Precautions:

- Weekly clean the Roof top & drainage system
- The System is designed for purely surface run off water, To ensure to recharge water is purely Rain Water/Fresh Water only & Contaminated Free.
- Save Water – Save Life.

[HYDROLOGIST]
BHUPENDRA KUMAR
Reg. Geo-Hydrologist &
Rain Water Harvesting Consultant
Licence No : 900/2017-18
Member of IHA Roorkee, LM 1938

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PATEL RAIN WATER HARVESTING

BHUPENDRA KUMAR (GEO –HYDROLOGIST) M.SC IN GEOLOGY

Reg: GEOHYDROLOGIST IN RAIPUR MUNICIPAL CORPORATION & INDIAN ASSOCIATION OF HYDROLOGIST (ROODKI)

ADD: - GANESH CHOWK WARD NO – 03, PATEL PARA KUMHARI, DIST. DURG (C.G.) *MOB – 9827859411, 8839136051*

SITE PHOTOGRAPHS:- NEAR OLD SOLAR AREA.

[HYDROLOGIST]
BHUPENDRA KUMAR
Reg. Geo-Hydrologist &
Rain Water Harvesting Consultant
Licence No.: 900/2017-18
Membar of IHA Roorkee, LM 1938

OUR SERVICES

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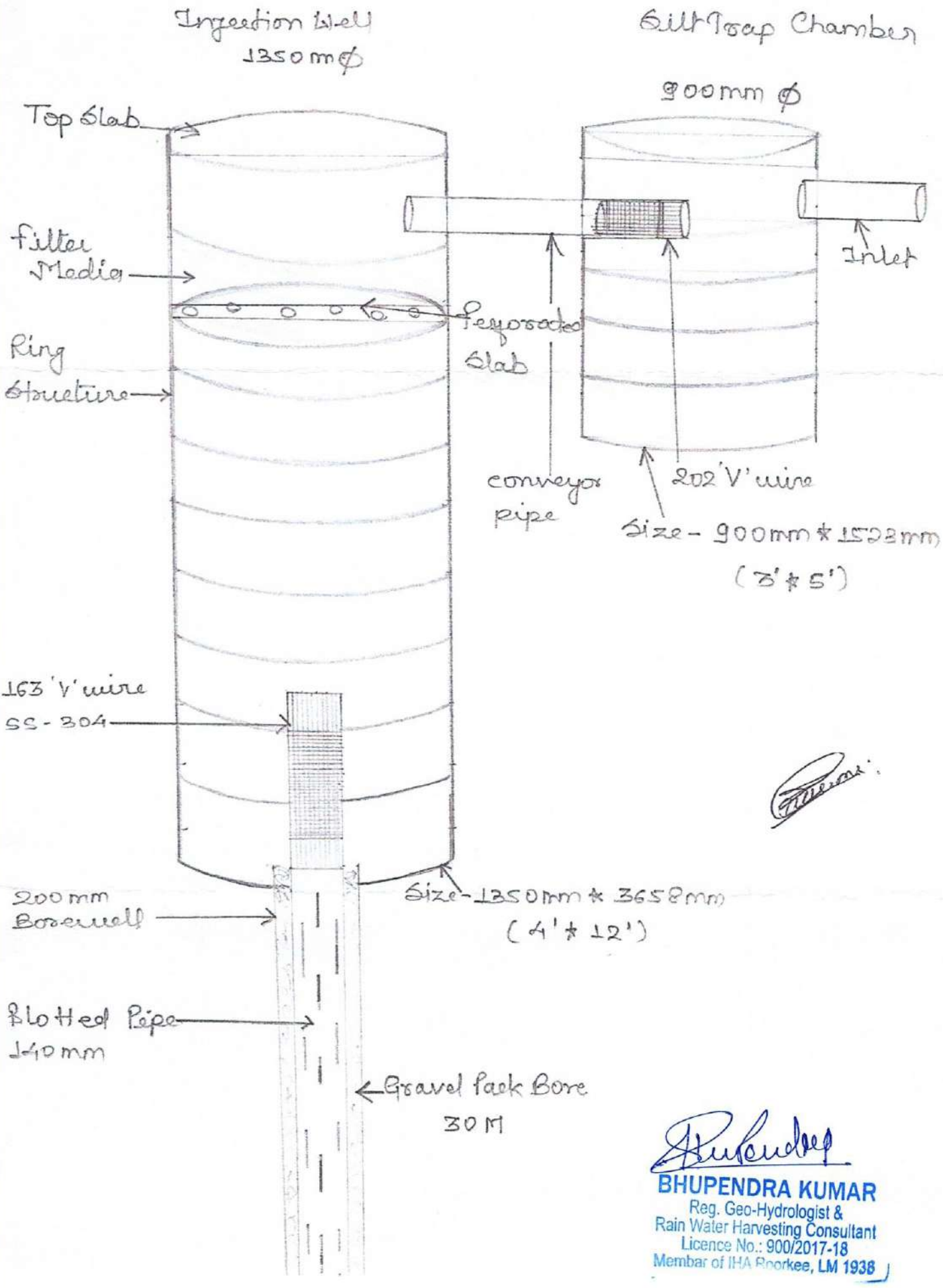
'V' wire Injection Well to Recharge Underground Water



BHUPENDRA KUMAR
Reg. Geo-Hydrologist &
Rain Water Harvesting Consultant
Licence No.: 900/2017-18
Membar of IHA Roorkee, LM 1938

Enclosure 2 (i)

HIRA
ALOK FERRO ALLOYS

COPY

AFAL/ENV/2025-26/158 **Date: 15.09.2025**

To,
General Manager
Chhattisgarh Industrial Development Corporation (CSIDC)
Udyog Bhawan, Ring Road No.1, Telibandha,
Raipur (C.G.) - 492006, India.

Subject: Request for Issuance of Certificate of Adequacy of Roads Based on Carrying Capacity of Transportation Load.

Respected Sir,

This is in reference to the above cited subject matter. We, *M/s Alok Ferro Alloys Limited*, kindly request your good office to arrange for the issuance of a **Certificate of Adequacy of Roads based on the Carrying Capacity of Transportation Load** in respect of our unit.

We hereby inform you that our company is situated in the Government notified Industrial Area at Plot No. 458/1 and 459, Urla Industrial Area, Raipur District, Chhattisgarh. As part of statutory requirements and compliance obligations, we have required formal certification from the competent authority confirming that the existing road infrastructure is structurally adequate and capable of bearing the anticipated transportation load.

We therefore request your kind consideration and necessary action in issuing the above mentioned certificate at the earliest.

Thanking you

Yours faithfully

For, Alok Ferro Alloys Limited

Authorized Signatory

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

C.S.I.D.C. LTD. Inward No: Dated: 16/09/25 RAIPUR (C.G.)

Alok Ferro Alloys Limited
CIN - U28112CT1987PLC003847
Registered office & Works : Plot No. 458/1 & 459, Urla Industrial Comlpex, Raipur - 492003, Chhattisgarh, India
P: +91 771 4082350-60, F: +91 771 4082452
Corporate office : Ground Floor, Hira Arcade, Near Bus Stand, Pandri, Raipur - 492004, Chhattisgarh, India
P: +91 771 4082470, F: +91 771 4082742
www.alokferro.com, www.hiragroup.com

HIRA

GODAWARI POWER & ISPAT
428/2, Phase-1, Industrial Area, Siltara, Raipur - 493111, Chhattisgarh, India

WATER ANALYSIS REPORT

GPIL/EMS/2025-26/ 129 Date: 04.09.2025

M/s ALOK FERRO ALOY

A. SAMPLING DETAILS :

1	Sample collected from source	TREATED WATER
2	Date of Collection	07.08.2025
3	Date of Analysis	08.08.2025 to 11.08.2025
4	Sample collected by	Mr. Prakash Dewangan
5	Analyzed by	Mr. Ugendra Verma

B. ANALYSIS DETAILS :

S. N.	Characteristics	Permissible Limits	Sample Results	Analysis Method
1	TEMPERATURE	Not more than 5 ºC to intake water	26.2 ºC	IS 3025: Part 09
2	pH	5.5-9.0	7.46	IS 3025: Part 11
3	TSS	100.0 mg/l	38.2	IS 3025: Part 17
4	COD	250	42.0	ASTM: D1252-06
5	BOD	30	6.8	IS 3025: Part 27
6	Oil & Grease	10	2.0	IS 3025: Part 39

Chemist AGM Head of the Department
(Environment Management System)

Abbreviation: ASTM- American Society for testing & Materials, APHA- American Public Health Association, IS - Indian Standard; **Monitoring & Analysis Protocols :** as per Indian Standard Manual of various part/editions, for Water & Waste water analysis.

TEST REPORT

Report No.: GECPL/WW-202507/51			Date:		05/08/2025
URL No.:					
Customer Name & Address	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Contact Person	:	Mr. Tarun Kumar			
Date of Sample Collection	:	27/07/2025	Sampling Type		Grab
Date of Sample Received	:	30/07/2025	Sample ID	:	WW-202507/51
Sampling Location	:	STP Outlet	Sample Description	:	Waste Water
Sample Collected / Submitted by	:	GECPL Team	Protocol used for Sampling	:	APHA 24thEdition
Quantity / No. of Sample	:	2Liter/1Nos.	Analysis Started On	:	30/07/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	05/08/2025
Type of Container	:	Plastic Container	Format No.	:	7.8 F-01
Environmental Condition during the test			25°C ±3 °C		

Waste Water Analysis Results

S.No.	Name of Test	Method of Test	Test Result	Units	Limits as per Environmental ProtectionRule,1986 (Sch-VI)
Chemical Testing					
Waste Water					
1	pH	APHA 24th Edition 4500-H+ B:2023	7.62	-	5.5-9.0
2	Total Suspended Solids (TSS)	APHA 24th Edition 2540-D :2023	8.6	mg/L	100 (Max.)
3	Oil & Grease	APHA 24th Edition 5520 –B: 2023	0.8	mg/L	10 (Max.)
4	Biochemical Oxygen Demand (BOD) 3 Days at 27°C	IS:3025 (Part-44)-2023	8.9	mg/L	30 (Max.)
5	Chemical Oxygen Demand (COD)	IS:3025(Part-58)-2023	43	mg/L	250 (Max.)

Remarks: Sampling done by GECPL representative (Mr. Ayush Beniwal).
BLQ: below limit of quantification

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

Tested By
(Sr. Chemist/Chemist)

Gurukripa Enviro Care Pvt. Ltd. Auth. Sign.

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

Enclosure 2 (k)

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:	Alok Ferro Alloys Limited (Power Division)		
Project Address:	Plot No. 458/1, 459 Urla Industrial Area, Urla Raipur (c.g.)		
Town:	Birgaon (m)	Block:	Dharsiwa
District:	Raipur	State:	Chhattisgarh
Pin Code:			
Communication Address:	Plot No. 458/1, 459, Urla Industrial Area Raipur (c.g.), 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.	**NOC No.:**	CGWA/NOC/IND/ORIG/2024/19847	2.	**Date of Issuence**	02/02/2024
3.	Application No.:	21-4/9963/CT/IND/2024	4.	Category: (GWRE 2023)	Critical
5.	Project Status:	Existing Project	6.	NOC Type:	New
7.	**Valid from:**	15/01/2024	8.	**Valid up to:**	14/01/2027

9. Ground Water Abstraction Permitted:

Fresh Water		Saline Water		Dewatering		Total	
m³/day	m³/year	m³/day	m³/year	m³/day	m³/year	m³/day	m³/year
100.00	36500.00						

10. Details of ground water abstraction /Dewatering structures

	Total Existing No.:0						**Total Proposed No.:2**					
	DW	DCB	BW	TW	MP	MPu	DW	DCB	BW	TW	MP	MPu
Abstraction Structure*	0	0	0	0	0	0	0	0	2	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.):	146000.00
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

(Compliance Conditions given overleaf)

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

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

पानी बचाये – जीवन बचाये
SAVE WATER - SAVE LIFE

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

Mandatory conditions:

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

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

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

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

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

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

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

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

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

10) This NOC is subject to prevailing Central/State Government rules/laws/norms or Court orders related to construction of tube well/ground water abstraction structure / recharge or conservation structure/discharge of 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 m3/day, the firm/entity shall ensure implementation of dual water supply system in the projects.

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

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

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.)

CENTRAL GROUND WATER AUTHORITY

CENTRAL GROUND WATER AUTHORITY

Department of Water Resources, River Development and Ganga Rejuvenation
Ministry of Jal Shakti, Govt. of India

Receipt

(As per the MoJS guidelines dated 24.09.2020 vide SO No. 3289(E) and amendments dated 29.09.2023 vide SO No. 1509(E))
https://cgwa-noc.gov.in

Application No,:	21-4/9963/CT/IND/2024	Date of Issuence:02/02/2024
Name of Firm:	ALOK FERRO ALLOYS LIMITED (POWER DIVISION)	
AppType Category:	*Power generation unit*	
Application Type:	*Industrial*	
PAN/GSTIN No. of Firm/Individual:	*AACCA0569P / 22AACCA0569P1ZL*	

SN	Description	Amount (Rs.)
1.	Application Processing Fee	**10000.00**
2.	Ground Water Abstraction charges	
3.	Ground Water Restoration charges	
4.	Environmental Compensation Charges (ECRGW) *(Date From to) Days-*	
5.	Penalty for non-Compliance of NOC conditions *Condition to be mentioned*	
6.	Adjustment Charges	
7.	Rebate	
8.	Charges for correction/modification in the existing issued No Objection Certificate	

S.No.	Description	Rate
(i)	Change in User ID	Rs. 5000
(ii)	Change in firm Name	Rs. 5000
(iii)	Extension of No Objection Certificate	Rs. 5000
(iv)	Issuance of duplicate No Objection Certificate	Rs. 5000
(v)	Issuance of corrigendum to No Objection Certificate	Rs. 5000
(vi)	Any other items/correction etc.	

Rs. Rupees One Lakh Fifty Six Thousand Only	**156000.00**

This is an system generated invoice, hence, does not require ink signed.

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पानी बचाये – जीवन बचाये
SAVE WATER - SAVE LIFE

Term and conditions:

i. All disputes are subject to Delhi Jurisdiction.
ii. Any complaint in regard to the rates will not be entertained.

Member-Secretary
CGWA, New Delhi

CENTRAL GROUND WATER AUTHORITY

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Enclosure - 5

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:	Alok Ferro Alloys Limited (ferro Division)		
Project Address:	Plot No. 458/1, 459, Urla Industrial Area, Urla Raipur Chhattisgarh., Urla Industrial Area, Urla Raipur (c.g.)		
Town:	Birgaon (m)	Block:	Dharsiwa
District:	Raipur	State:	Chhattisgarh
Pin Code:			
Communication Address:	Plot No. 458/1, 459, Urla Industrial Area, Urla Raipur Chhattisgarh., Urla Industrial Area, Urla Raipur (c.g.), 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.	**NOC No.:**	CGWA/NOC/IND/ORIG/2024/20228	2.	**Date of Issuence**	4/29/2024 5:04:35 PM
3.	Application No.:	21-4/10271/CT/IND/2024	4.	Category: (GWRE 2023)	Critical
5.	Project Status:	Existing Project	6.	NOC Type:	New
7.	**Valid from:**	20/04/2024	8.	**Valid up to:**	18/03/2027

9. Ground Water Abstraction Permitted:

Fresh Water		Saline Water		Dewatering		Total	
m³/day	m³/year	m³/day	m³/year	m³/day	m³/year	m³/day	m³/year
75.00	27375.00						

10. Details of ground water abstraction /Dewatering structures

	Total Existing No.:0						**Total Proposed No.:2**					
	DW	DCB	BW	TW	MP	MPu	DW	DCB	BW	TW	MP	MPu
Abstraction Structure*	0	0	0	0	0	0	0	0	2	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.):	109500.00
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

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CENTRAL GROUND WATER AUTHORITY

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Department of Water Resources, River Development and Ganga Rejuvenation
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Receipt

(As per the MoJS guidelines dated 24.09.2020 vide SO No. 3289(E) and amendments dated 29.09.2023 vide SO No. 1509(E))
https://cgwa-noc.gov.in

Application No,:	21-4/10271/CT/IND/2024	Date of Issuence:4/29/2024 5:04:35 PM
Name of Firm:	ALOK FERRO ALLOYS LIMITED (FERRO DIVISION)	
AppType Category:	*Ferrous Metallurgical Steel*	
Application Type:	*Industrial*	
PAN/GSTIN No. of Firm/Individual:	*AACCA0569P /*	

SN	Description	Amount (Rs.)
1.	Application Processing Fee	**10000.00**
2.	Ground Water Abstraction charges	
3.	Ground Water Restoration charges	
4.	Environmental Compensation Charges (ECRGW) *(Date From to) Days-*	
5.	Penalty for non-Compliance of NOC conditions *Condition to be mentioned*	
6.	Adjustment Charges	
7.	Rebate	
8.	Charges for correction/modification in the existing issued No Objection Certificate	

S.No.	Description	Rate
(i)	Change in User ID	Rs. 1000
(ii)	Change in firm Name	Rs. 5000
(iii)	Extension of No Objection Certificate	Rs. 5000
(iv)	Issuance of duplicate No Objection Certificate	Rs. 5000
(v)	Issuance of corrigendum to No Objection Certificate	Rs. 5000
(vi)	Any other items/correction etc.	Rs. 500

Rs. Rupees One Lakh Ninteen Thousand Five Hundred Only	**119500.00**

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Member-Secretary
CGWA, New Delhi

CENTRAL GROUND WATER AUTHORITY

FORM10

[See rule 19(1)]

MANIFEST FOR HAZARDOUS AND OHTHER WASTE

1.	Senders name and mailing address (include Phone No. e-mail):	M/s Alok Ferro Alloys Limited , situated at Plot No. 458/1, 459, Urla Industrial Area, Urla Raipur Chhattisgarh, 492003. E-Mail – ajay.dubey@hiragroup.com Contact - 975552209		
2.	Senders authorization No.	772/HSMD/HO/CECB/ATAL NAGAR, RAIPUR Validity from 15.12.2024 to 22.08.2028		
3.	Manifest Documents No.	02		
4.	Transporters name and address: (include Phone No. e-mail):	Mr. Ankit Kumar Contact – 8602503239		
5.	Types of vehicle	(Truck/Tanker/Special Vehicle)		
6.	Transporters registration No.			
7.	Vehicle registration No.	CG04NL 9134		
8.	Receivers name and mailing address (include Phone No. e-mail):	M/s Mehar Lubes, Plot No. 25 Sector-B, Vill- Sirgitti Industrial Area, Dist- Bilaspur Chhattisgarh. E-Mail – agarg19848@gmail.com Contact – 8602503239		
9.	Receivers authorization No.	80/HSMD/HO/CECB/ATAL NAGAR, RAIPUR Validity 29.06.2027		
10.	Waste description	Used/Spent oil [sch.I, cat. 5.1]		
11.	Total Quantity No. of Containers	0.085 .....m^3 or MT 1 .....Nos./ Barrels		
12.	Physical form:	(Solid/semi-solid/Sludge/Oily/Tarry/Slurry/Liquid)		
13.	Special handling instruction and additional information	Avoid spillage, use of proper PPES		
14.	Senders ~~Certificate~~	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorized, Packed, marked, and labelled, and are in all respects in proper conditional for transport by road according to applicable national government regulation		
15.	Name and stamp: Signature	Month 08	Day 27/Wed.	year 2025
16.	Transporter acknowledgement of receipt of waster			
17.	Name and stamp: Signature	Month 08	Day 27/Wed.	year 2025
18.	Receivers Certificate for receipt of hazardous and other waste			
19.	Name and stamp: Signature	Month 08	Day 27/Wed.	year 2025

ALOK FERRO ALLOYS LTD HIRA RAIPUR (C.G.)

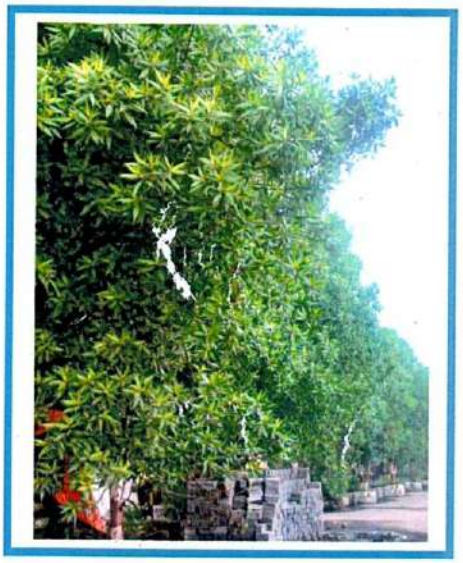
MEHAR LUBES BILASPUR C.G.

For, Alok Ferro Alloys Ltd.

Stores Dept.

Annexure VI: Plantation Audit Report

GREEN BELT SURVEY & EVALUATION REPORT OF M/s ALOK FERRO ALLOYS LIMITED. URLA INDUSTRIAL AREA, RAIPUR. (C.G.)



M/s ALOK FERRO ALLOYS LIMITED.

Situated at Plot. No. 458/1, 459 Urla Industrial area – Urla, Raipur (Chhattisgarh)

Report Prepared by: S. K. ROY
Retd. A C F (C. G. Forest)

"SEIDR"

Submitted by: "Society for Environment & Integrated Development Raipur"Raipur (Chhattisgarh)

Evaluation of Green Belt Development

FOR

M/s ALOK FERRO ALLOYS LIMITED

Situated at Plot No. 458/1, 459 ,UrlaIndustrial Area – Urla, Raipur (C.G.)

Survey & Evaluation by: "Society for Environment & Integrated Development Raipur"
Raipur (C.G.)

GREEN BELT: SURVEY & EVALUATION REPORT OF M/s ALOK FERRO ALLOYS LIMITED

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PART – A

INTRODUCTION

Alok Ferro Alloys Limited is existing Ferro Alloys plant (through Submerged Arc Furnace route) & Captive Power Plant 8 MW at plot No. 458/1, 459, Urla Industrial Area, Urla, Raipur, Raipur, Chhattisgarh, 492003. The company was promoted by ShriGopal Prasad Agrawal& presently running under the leadership of ShriVinayAgrawal who is the Director of Unit, Under their active guidance the company has been continuously expanding and diversifying its activities and has recorded substantial growth. Date of Commencement of production is March 1995 for ferro Alloys and Feb 2006 for Power Plant.

OCCUPIER & FACTORY MANAGER OF THE UNIT

SHRI AJAY DUBEY (Director)
Alok Ferro Alloys Limited
458/1, 459, Urla Industrial Area, Urla, Raipur, Chhattisgarh, 492003.
Mail ID : ajay.dubey@hiragroup.com
Phone No.- 0771- 4938401(O), M- +91 97555 22009.

Alok Ferro Alloys Limited. As a member of the Hira Group, one of the largest business conglomerates in Chhattisgarh, the company benefits from the group's extensive experience in diverse sectors such as power generation, sponge iron, steel production, ferro alloys, mining, and cement manufacturing. The group's deep expertise in project execution and cost-effective production methods further strengthens Alok Ferro Alloys Limited's position in the market.

The company is registered under the Companies Act of 1956 and continues to play a pivotal role in the Hira Group's portfolio by contributing significantly to the group's broader objectives of achieving operational efficiency and sustainable growth in the Ferro Alloys and steel manufacturing sectors.

Green vegetation cover offers numerous benefits for the environment and society. It aids in conserving biodiversity by providing habitats for various species. Additionally, it helps retain soil moisture, facilitating agricultural productivity and reducing erosion. Green cover also contributes to groundwater recharge, ensuring sustainable water resources. Moreover, it plays a crucial role in maintaining a pleasant microclimate in regions, offering shade and cooling effects. Overall, green vegetation cover is essential for ecological balance and human well-being.

Regulations/ Environmental Law for Green Belts Development in India:

The regulation and environmental laws pertaining to green belt development in India are primarily governed by the following:

1. Environment Protection Act, 1986 (EPA): This is the umbrella legislation for environmental protection in India. It empowers the central government to take measures for the protection and improvement of the environment. Under this Act,

Environmental Impact Assessment (EIA) is mandatory for certain projects including those affecting green belts.

2. Forest (Conservation) Act, 1980: This Act regulates the diversion of forest land for non-forest purposes, including for green belt development. It requires prior approval from the central government for such diversions.

3. Wildlife Protection Act, 1972: This Act aims to protect wildlife and their habitats. It prohibits certain activities within protected areas, which often include green belts.

4. Town and Country Planning Acts: Different states in India have their own town and country planning acts which regulate land use and development activities, including provisions for green belts.

5. Local Municipal Laws: Municipal laws and by-laws often include provisions for maintaining green spaces within urban areas.

6. National Green Tribunal (NGT): The NGT is a specialized body in India that handles cases related to environmental protection and conservation. It plays a crucial role in ensuring compliance with environmental laws, including those related to green belts.

7. Environmental Clearance: Projects that impact the environment, including those affecting green belts, require environmental clearance from the Ministry of Environment, Forest and Climate Change (MoEF&CC) or the State Environmental Impact Assessment Authority (SEIAA) depending on the scale of the project.

8. Land Acquisition Act, 2013: In cases where land needs to be acquired for green belt development, the Land Acquisition Act provides the legal framework for fair compensation and rehabilitation of affected persons.

9. Local Government Regulations: Municipal corporations and local governing bodies often have regulations pertaining to green spaces, parks, and open areas within their jurisdictions.

These laws and regulations collectively aim to ensure sustainable development while protecting and preserving green spaces and the environment in India. Compliance with these regulations is crucial for any development activities, including those involving green belts, to avoid legal complications and environmental damage.

This refers to environmental regulations or guidelines set forth by the Ministry of Environment, Forest and Climate Change (MoEF&CC) regarding the establishment of green belts around industrial plants. These regulations typically aim to mitigate the environmental impact of industrial activities by promoting the creation of green spaces.

According to the stipulations mentioned, a green belt must be established around the plant by planting trees. The total area of the green belt, including landscaping areas, should be one-third (33%) of the total plant area. This means that a significant portion of the plant area will be dedicated to greenery and landscaping to improve the environmental aesthetics and ecological balance.

Additionally, it is also mentioned to lay down areas that will be converted into green spaces later on. This suggests that there may be temporary areas within the plant site that will eventually be transformed into green zones as part of the overall green belt development.

Following these regulations will not only help in complying with environmental laws but also contributes to biodiversity conservation, air quality improvement, and overall environmental sustainability.

1. ABOUT PROJECT

M/s Alok Ferro Alloys Ltd. situated at Industrial area – Urla, RaipurDistrict – Raipur (C.G.)located in Industrial area – Urla, RaipurChhattisgarh, is an integrated Ferro Alloys plant equipped with advanced technology for the production of Ferro Alloys (through submerged arc furnace route) and Captive powerplants. Its Registered office is situated at Plot No. 458/1, 459 Urla Industrial area, Dist. – Raipur, State – Chhattisgarh India.

2. LOCATION OF PLANT AND ACCESSIBILLTY

The plant area of Alok Ferro Alloys Ltd.,is situated atIndustrial area – Urla, Raipur,Post- Birgaon, Raipur district, Chhattisgarh State. It's approximately 8 kilometers away from Raipur city and just 1.5 kilometers from Raipur – Bilaspurmain road. Access to the project site is facilitated by both bitumen roads. The Raipur railway station, located on the Mumbai-Howrah broad gauge mainline of the South-Eastern-Central Railway, is about 10 kilometers away from the project area. Additionally, the Swami Vivekananda International Airport is approximately 24 kilometers away from the Alok Ferro Alloys Ltd.

3. AREA DESCRIPTION

I	**Plant Premises Area**	**7.317 Ha. (18.08 Acre)**
II	**Existing Green Belt Area Inside plant premises**	**0.768 Ha. (1.89 Acre) @ 10. 5 %**
III	**Outside of Plant Premises Plantation Are** (Urkura site on Govt. Land & Birgaov Muktidham)	**2.22 Ha. (5.5 Acre) @ 30.42 %** Approx. (30% area of outside the plant premises) is developed as green belt.

4. GREEN BELT

Establishing an Environment Management Department (EMD) demonstrates M/s Alok Ferro Alloys Limited commitment to environmental responsibility and compliance with regulations set forth by the Ministry of Environment, Forest and Climate Change (MoEF&CC), Central Pollution Control Board (CPCB), and the Chhattisgarh Environment Conservation Board. The green belt development mandate in India aims to mitigate environmental impact, particularly in industrial sectors like steel production.

Alok Ferro Alloys Ltd's EMD likely oversees various pollution control measures, including but not limited to:

1. Implementing technologies for reducing emissions of pollutants such as particulate matter.
2. Monitoring air, water, and soil quality to ensure compliance with regulatory standards.
3. Managing waste generated during the steel production process, including hazardous and non-hazardous waste, through proper disposal or recycling methods.
4. Developing and maintaining green belts or vegetative barriers around the industrial facility to mitigate air and noise pollution, improve aesthetics, and provide ecological benefits such as biodiversity conservation and soil stabilization.
5. By establishing an EMD, Alok Ferro Alloys Ltd. not only fulfils its legal obligations but also demonstrates a proactive approach to environmental stewardship and sustainable business practices. This department plays a crucial role in ensuring that the company operates in harmony with its surroundings while minimizing its environmental footprint.

The Green Belt helps to capture the fugitive emission and attenuate the noise apart from improving the aesthetics of the region. Of total area (18.08 acres approx.) of the project site, 40 % area (7.232 acres) shall be developed as green belt all along the boundary of the plant, in blocks and other available spaces. Development of green belt and other forms of greenery in and around plant site and plantation in the nearby hill and village are helpful to improve ecological conditions and biodiversity status of the area.

Survey and Evaluation work was allotted by M/s Alok Ferro Alloys Ltd, Industrial area- Urla, Raipur (C.G.)to our organization "Society for Environment & Integrated Development Raipur" vide Service order no. FERRO/24-25/SO/0102 Dated 30.07.2024.

5. EVALUATION OF PLANTATION

Evaluation of Plantation needs to be done by the Industrial units for Existing Plantation within plant premise & nearby areas as per stipulations made by MoEF & CC, New Delhi and CECB, Raipur in its permissions granted to the company as also directions received from the Regional offices time to time.

6. PROJECT OBJECTIVE

Plant Species act as bio-monitoring agent to monitor the air environment as well as it keeps and maintains the project environment healthy by providing more oxygen. The two areas of air pollution i.e. gases and dust need to be urgently attended by using plants. Keeping this in mind, pollution abatement measures have been suggested to develop green belt based on local and physical conditions of the areas by taking the cognizance of "**Greening with Purpose drive**".

7. PLANTATION DETAILS

M/s Alok Ferro Alloys Ltdis working diligently on its tree plantation efforts within and outside the plant premises. Apart from gap filing, a total of 7647saplings were planted in the year from 2007 to 2024, in an area of about 2.97Ha. (7.39 Acre)They have exceeded the statutory requirement of developing 33% of the total land area as a green belt. This demonstrates their commitment to environmental conservation and sustainability.

8. Table: 1 Details of year wise plantation inside plant premises

S. n.	Plantation years	Area In Acre out of total Project Premises (18.08 Acre)	Total planted plants	Total Survival plants	Survival %
1.	**2007-2024**	**1.89**	**1517**	**1088**	**72%**

9. Table: 2 Details of Outside Plantation: Birgaon Muktidham.

S. n.	Total planted plants	Allotted Are by Nagar Nigam (in Acre)	PLANTED AREA In Acre	Total Survival plants	Survival %
1.	**2130**	**3.8**	**1.5**	**1816**	**85%**

10. Table: 3 Details of Outside Plantation: Urkura Govt. Land.

S. n.	Total planted plants	Allotted Are by Nagar Nigam (in Acre)	PLANTED AREA In Acre	Total Survival plants	Survival %
1.	**4000**	**4**	**4**	**3274**	**82%**

11. Table No. 4 M/s Alok Ferro Alloys Ltd. Total No. of Planted Plants Plant premises& outside and during Survey Survival plants and percentage:

S. n.	Total planted Plants Plant premises & outside	Total no. of survival plants	Survival %	Area covered as Green belt
1.	**7647**	**6178**	**81%**	**6.10 Acres**

12. PLANTATION SITES

Plantation work has been done along the plant boundary, inside the plant premises, roadside and the nearby hill area. Plantation survey has been carried out by our expert team with the help of M/s Alok Ferro Alloys Ltd. Management and office staff. Following plantation sites have been planted by M/s Alok Ferro Alloys Ltd.

A. Plant premises

1. Temple Garden surrounding area.
2. Admin. Building area.
3. Main gate to power plant road both side.
4. C H P area
5. Old CHP area
6. Power Plant Coal area
7. Mechanical Gate area
8. Along with all boundary wall side.
9. Road Side Boundary wall area.

Part - B

1. PHYSICAL VERIFICATION OF PLANTATION (GREEN BELT) AND EVALUATION REPORT

2. METHODOLOGY

- Counting- All plants, Trees and sapling of all sites are counted.
- Measurement – Average Height of Trees, Plants and Sapling are taken randomly.
- Measurement are Recorded. Photographs have been taken so as to show real picture of plantation.
- Plantation at the site. Details of species are also noted.

Upon survey (Physical verification) by our team, we found that for the year 2007-2024, 7647 nos. plants, saplings have been planted by Alok Ferro Alloys Limited, out of which 6181 has survived. The measurements of the plants are given in table below:-

3. Planted Species and Measurements

M/s Alok Ferro Alloys Limited, (Plant Premises)(2007-24)							
s. n.	Species	Average		Maximum		Minimum	
		Girth (cm)	Height (m)	Girth (cm)	Height (m)	Girth (cm)	Height (m)
1.	Alastonia	49.2	8.92	80	12	35	4.50
2.	Conocarpus	12.63	4.21	24	5.50	4	1.70
3.	Jamun	20	3.05	40	6.50	5	1.80
4.	Neem	37.4	5.55	130	14	6	1.50
5.	Semal	29.75	4.31	45	6	15	2.50
6.	Ashok	12.37	4.06	20	5.50	10	2.00
7.	Mango	16.18	2.42	25	4	4	0.50
8.	Badam	41.12	6.47	135	12	30	4.00
9.	Mayurpankhi	12.83	3.48	18	5	8	2.00
10.	Bottle Palm	1.09	10.8	140	13	.80	9.00
11.	Pipal	38.8	4.82	90	7	6	1.70
12.	Sagoun	37.4	2.43	75	6	12	1.80
13.	Sitaphal	8.6	1.21	18	3.50	5	1.60
14.	Kaner	12.38	2.16	20	4	5	1.00
15.	Coconut	37.25	4.23	85	8	12	2.50
16.	Tecoma	9.88	1.52	15	2.20	6	0.90
17.	Bargad	16.07	2.56	30	5.50	6	0.80

18.	Sisu	37.11	4.22	70	7.50	15	2.00
19.	Karanj	13.68	2.05	32	3.50	6	0.80
20.	Ganga Imali	51.11	5.16	80	6	35	4.00
21.	Shisham	10.6	1.42	30	2.50	3	0.70
22.	Chind	6.05	4.02	78	5	4	2.50
23.	Arjun	28.73	3.03	80	6	10	1.00
24.	Khamar	19.07	3.77	35	6.00	6	1.30
25.	Mahoguni	19.75	3.08	30	4.50	10	2.00
26.	Amaltas	19.8	2.46	30	3.50	10	1.50
27.	Gumohar	44.8	5.8	110	10	12	2.00
28.	Moulshri	25.78	3.48	45	6	12	1.80
29.	Bogunvelia	18.50	3	20	3.50	8	2.00
30.	Ficus	11.66	1.48	18	2.50	5	0.70
31.	Acacia	12	1.95	30	4.50	6	1.30
32.	Munga	15	7.00	28	8.50	8	2.50

4. Planted Species and Measurements

Alok Ferro Alloys Limited, (Urkura Govt. Land)(2023-24)							
s. n.	Species	Average		Maximum		Minimum	
		Girth (cm)	Height (m)	Girth (cm)	Height (m)	Girth (cm)	Height (m)
1.	Badam	8.18	2.15	12	3.00	4	1.70
2.	Neem	12.7	2.16	18	3.80	12	1.60
3.	Mahoguni	8.7	2.14	12	3.10	5	1.35
4.	Kadamba	8	2.34	10	2.60	6	2.00
5.	Conocarpus	8.88	2.74	10	3.00	8	2.00
6.	Pipal	8.3	2.26	10	3	5	1.70
7.	Jam (Guava)	8.76	1.18	14	2.60	5	0.45
8.	Arjun	8.81	2.84	14	3.20	5	1.20
9.	Karanj	8.72	2.43	10	3.10	6	1.80
10.	Moulshri	4.90	1.54	8	1.80	4	1.35
11.	Kachnar	7.18	1.90	16	2.70	5	0.80
12.	Bargada	10.75	2.50	16	3.50	6	1.50
13.	Gulmohr	10.2	2.64	12	3.50	6	1.70
14.	Siris (Black)	7.7	1.83	14	2.50	4	1.20
15.	Peltophorum	11.11	28.8	14	4	8	2.20
16.	Bouganivillea	4.6	1.16	6	2.50	3	0.35

5. Planted Species and Measurements

Alok Ferro Alloys Limited, (BirgaonMuktidham)(2024-25)							
s. n.	Species	Average		Maximum		Minimum	
		Girth (cm)	Height (m)	Girth (cm)	Height (m)	Girth (cm)	Height (m)
1.	Pipal	45.33	4.62	90	12	2	.30
2.	Ashok	10.83	2.91	15	5	6	1.50
3.	Conocarpus	3.90	1.18	5	4.50	3	0.50
4.	Mahoguini	16.71	3.42	25	6	8	1.00
5.	Bargad	55	3.23	2.50	7	3	0.70
6.	Bel	4.4	0.73	8	1.80	3	0.25
7.	Peltophorum	45.42	4.14	70	7	20	2.00
8.	Champa	21.12	3.31	35	5	12	2.00
9.	Kaner	2.55	063	3	0.70	2	0.45
10.	Sisu	2.63	0.90	5	1.50	2	0.50
11.	Aonla	3.9	0.97	14	4.50	2	0.30
12.	Kadamba	5	1.13	6	1.80	4	0.80
13.	Siris	25.7	3.9	1.10	12	6	1.20
14.	Khamar	21.42	3.57	38	6.50	10	1.50
15.	Sitaphal	3.62	1.23	8	3	2	0.45
16.	Kaner	9	1.8	15	2.1	5	1.60
17.	Mango	8.76	2.23	14	3.60	10	1.45
18.	Boguinvelia	5.00	1.60	12	2.80	5	0.45
19.	Neem	6.44	1.56	18	4.50	3	0.80
20.	Gulmohar	18.3	2.5	32	3.5	10	1.5
21.	Guava (Jam)	2.22	0.63	3	0.90	2	0.30
22.	Kesiasamia	2	0.78	2	1.20	2	0.40
23.	Kachnar	2	0.46	4	0.60	2	0.30
24.	Raintree	3.25	0.90	3	1.20	2	0.60
25.	Other Misc.	48.12	5.68	80	8.50	30	3.00

4. PLANTED SPECIES, PLANTS NUMBER AND PERCENTAGE

Planted Species, No. of planted plants, Survival plants no. and percentage				
S. N.	PLANTED SPECIES	No. of planted species	Survival as per survey	Survival (%)
1.	Alastonia, Conocarpus, Guava, Jamun, Neem, Semal, Ashok, Mango, Badam, Mayurpankhi, Bottle Palm, Pipal, Teak, Sitaphal, Kaner, Peltophorum, Coconut, Tecoma, Bargad, Sisoo, Dumar, Karanj, Shisham, Chind, Ganga Imali, Arjun, Bogunvelia, Siris Black, Kesiasamia etc.	7647 (2007-24)	6178	81%
	Total =	7647	6178	81%

In order to mitigate and minimize the environmental impacts arising due to the project, especially from air pollution, noise pollution, soil erosion etc. During Audit M/s SEIDR has found that A dense greenbelt has been developed all around the Existing site. Approx. 7683.81 sqm i.e. 10.5% of the area is developed as a green area within the plant premises and 21974.4 sqm i.e., approx. 30 % of the total plot area is developed outside the plant. Hence Project Proponent 40 % (7.232 Acre) area has been marked for greenbelt development in respect of total project Area (18.08 Acre).

5. GRADING OF PLANTATION :- GRADE CARD

a. Alok Ferro Alloys Limited.

Grading of project plantation on scale of 1 to 10

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

b. Grading of Project plantation on scale 1 to 10

Overall Grading of Plantation	Outstanding (Excellent) (8<10)	Very Good (5<8)	Good (3<5)	Poor (>3)
	8.12			

6. DISCUSSION WITH MANAGEMENT AND STAFF AS UNDER –

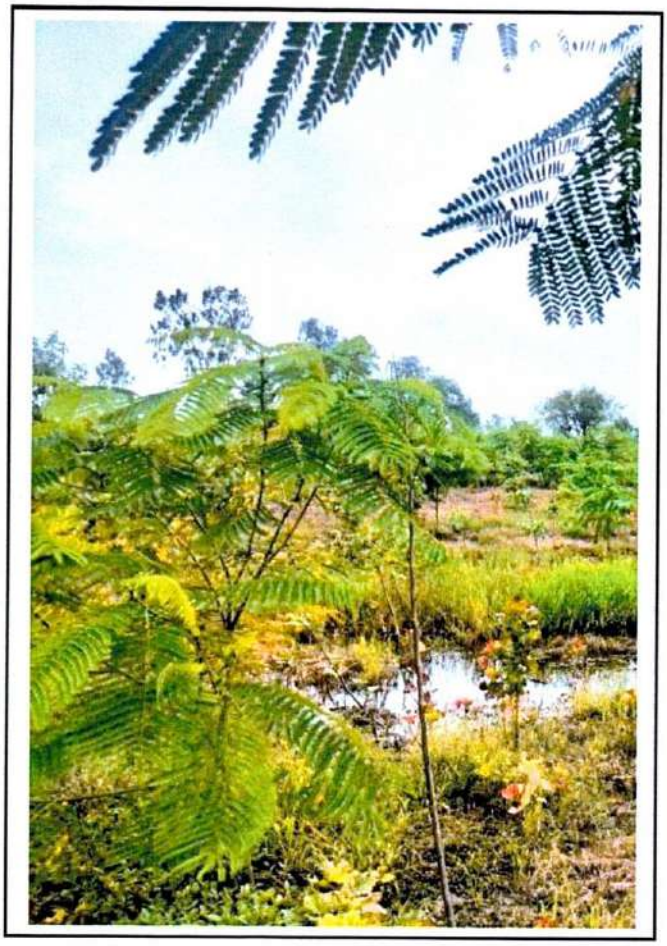
1. Mr. VinayAgrwal : Director
2. Mr. Ajay Dubey : Director
3. Mr. NiketKhandelwal : G M Corporate Affairs
4. Mr. Tarun Kumar : Asst. Manager Corporate Affairs

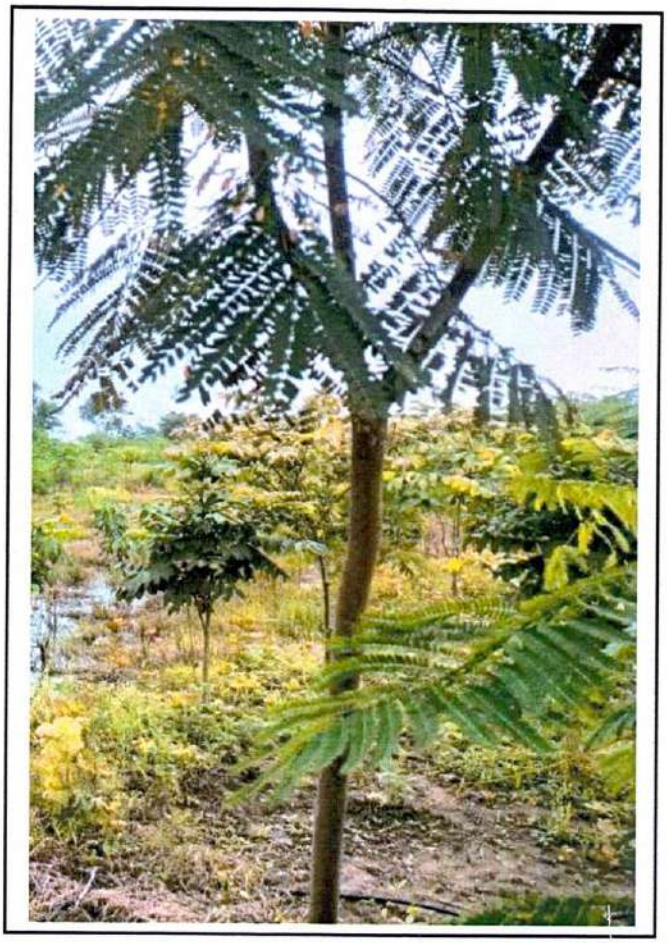
7. SUGGESTION FOR IMPROVEMENT

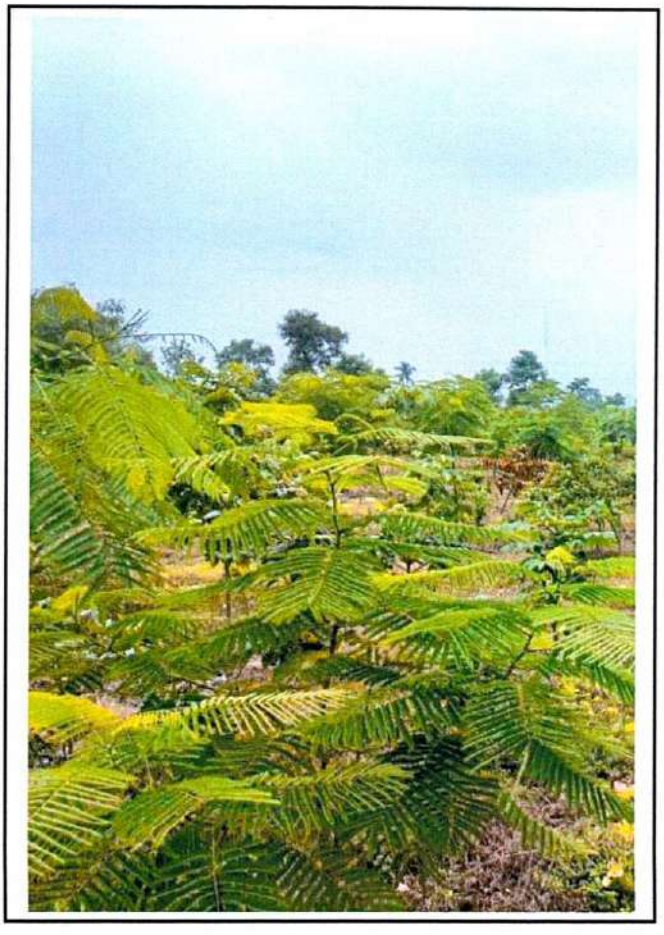
1. Plants to be planted not less than one year in age and 01 meter height.
2. Space 2M×2M, 3M×3M and maximum 4M×4M according to maximum girth of trees after maturity.
3. Species – Fast growing to be planted.
4. Given priority to broader leaves plants.
5. Species may be chosen as under – Khamar, Shisham, Teak, Kadamba, Acacia, Peltophorum,Neem, Nilgiri, Peepal, Amaltas, Karanja, Gulmohar, Mahaneem, Jamun, Ashoka, Arjuna, Bottle pam, Badam, Kadamba, Bamboos etc.
6. Increase irrigation facility to more number of plants.
7. Soils of pits should be changed in hard soil area.
8. Plants to be planted regularly every year including mortality replacement.
9. Germination Time – Humic oxide can be used for better results.
10. Manure – Compost, Vermi compost, DAP, Zhaim also to be used.
11. Termite and Other pests control – Cholorocyper, Imida combine.
12. Planting work to be done in June and July.
13. Mortality should not be counted for increase in area.
14. It is compulsory to have a water pipe line for the proper growth of the planted plants.

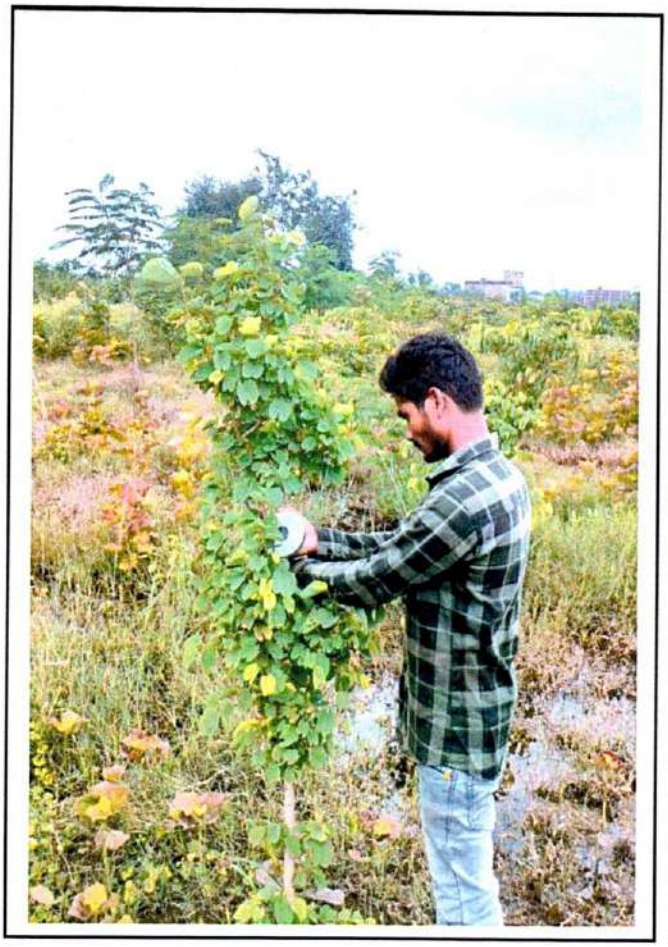
8. PICTURES OF PLANTATION

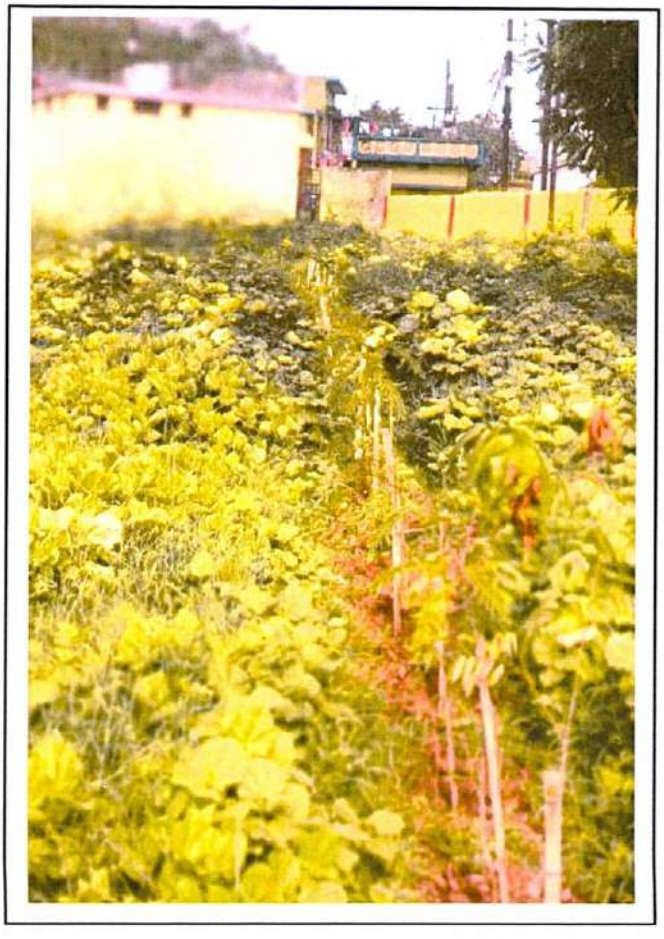
SOCIETY FOR ENVIRONMENT & INTEGRATED DEVELOPMENT RAIPUR ★ SEIDR

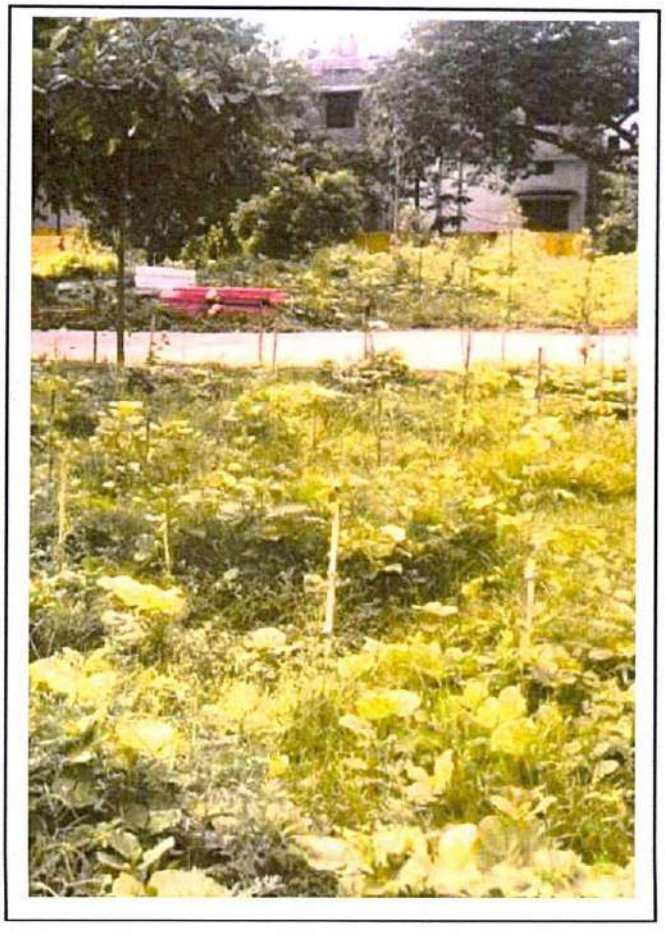




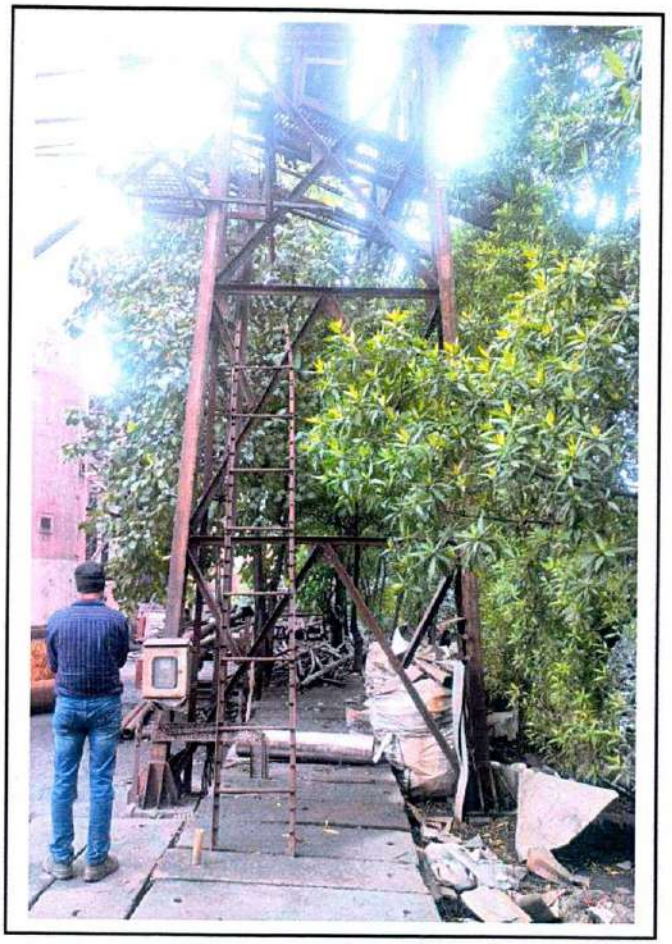








ALOK FERRO ALLOYS LTD.
ENVIRONMENT POLICY
ALOK FERRO ALLOYS LTD.
HEALTH & SAFETY POLICY



HIRA
वृक्षारोपण – अभियान

A WORD OF APPRECIATION

We appreciate all management officers and staff of M/s Alok Ferro Alloys Limited, who have taken steps to develop the green belt & greenery of area. We found that saplings have been taken care well after plantation. We appreciate the commitment and the effortsmade by the management for developing the green belt and greenery within & outside the plant premises.

"SEIDR"

(Society for Environment & Integrated Development Raipur)

Chhattisgarh

THE TEAM INVOLVED IN SURVEY & EVALUATION

S.No.	Name	Job	Experience
1.	Shri S. K. Roy	Head of Team	42 years experience of forest work (Retd. A.C.F. Chhattisgarh Forest)
2.	ShriD. K. Tiwari	Team Leader	18 years' experience of forest related work
3.	ShriKamleshDubey	Coordinator	8years' experience of monitoring & evaluation & micro planning
4.	ShriJashvir Singh Virdi	Investigator	7years' experience of monitoring & evaluation

EXECUTIVE BODY OF "SEIDR"

S.No.	Post	Name	Experience
1	President	Shri S.K. Roy	Retd. A.C.F. C.G. Govt.
2	Vice President	Smt. Shobh Mishra	Professional
3	Secretary	Smt. AshaTiwari	Professional
4	Join Secretary	KamleshDubey	Professional
5	Treasurer	Shri D.K. Tiwari	Professional

ABOUT THE EVALUATION AGENCY

Organization profile

Name of Organization	*"Society for Environment & Integrated Development Raipur"*
Status	*Non-Government Organization {NGO} and working as Development and welfare.*
No. & Date of registration	*C. G. State – 3270. Date – 01/03/2011*
Registration	*Under Society Registration Act. – 1973.*
Resource Centre Address: -	*J-9/A, ShriRam Nagar, Phase –I, Street – II, Post Office Shankar Nagar Raipur (C.G.) Pin Code – 492004.*
Phone: -	*+91- 771-3587611*
Chief Functionary	*Mr. S. K. Roy (Retd. Forest A.C.F. C.G. Forest) Mob. No. 094255 – 02223*
Contact Person	*Mr.D. K. Tiwari (Contact Person) Mob. No. 98261 – 86813, 96695 - 77114*
Mail at	seidraipur@gmail.com
Bank with	*State Bank of India, Vip Estate colony Raipur (C.G)* *Account No. – 35731546062 (Current A/C)* *IFS Code - SBIN0013004, PAN - AAHAS3608L*

SEIDR MISSION

The mission statement you provided for SEIDR focuses on empowering marginalized communities, especially tribes, women, and those striving for equality, to unlock their creative potential and resources. The mission emphasizes enabling these groups to fully and effectively engage in the social, economic, political, and cultural life of society and the nation in a sustainable way. This approach is centered on inclusion, equity, and long-term participation, aligning with broader goals of social justice and community development.

SEIDR VISION

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

Area of Operation

Intensively in all districts of Chhattisgarh state, with trainedtechnical and professional staff.

OTHER MEMBER OF EXECUTIVE BODY

S. No.	Name	Experience
1	Laxman Prasad Murchulia	Retd. Forester
2	PrabhatPandey	Electrical Engineer
3	AkhilShrivastava	Professional
4	VarunTiwari	Labour Court Lawyer
5	Smt. Nirmala	Labour Court Lawyer
6	Moh. Jabbar	Businessman
7	PradeepSahu	Professional

THANK YOU

****

SUPPORTING DOCUMENTS:

कार्यालय नगर पालिक निगम, बीरगांव जिला-रायपुर (छ.ग.)

Email id: birgaonmcp@gmail.com http://www.nagarnicambirgaon.com

क्रमांक / 2605 /न.पा.नि./भ.अनुज्ञा/सी.एस.आर./वृक्षा.–2020–21 बीरगांव,दिनांक 08/02/2021

प्रति,

प्रबंध संचालक
आलोक फेरो एलॉयस लिमिटेड
उरला, रायपुर छ.ग.

विषय :– सी.एस. आर. मद से आक्सीजोन बनाने/वृक्षारोपण करने तथा समुचित रखरखाव बाबत्।

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विषयान्तर्गत एन.जी.टी. के निर्देशानुसार प्रदूषण नियंत्रण एवं हरियर छत्तीसगढ़ हेतु CSR मद से प.ह.नं. 108/40, खसरा नं. 341 मौजा उरकुरा स्थित शासकीय भूमि रकबा लगभग 18 एकड क्षेत्र वृक्षारोपण हेतु उपयुक्त है। उसमे से 04 एकड क्षेत्र में ऑक्सीजोन बनाने/वृक्षारोपण करने तथा समुचित रखरखाव करने का अनुरोध है।

संलग्न :– प.ह.नं. 108/40, खसरा नं. 341 मौजा उरकुरा स्थित शासकीय भूमि रकबा लगभग 18 एकड नक्शा खसरा की प्रति।

आयुक्त
नगर पालिक निगम, बीरगांव
जिला–रायपुर (छ.ग.)

पृ. क्रं./ 2606 /न.पा.नि./भ.अनुज्ञा/सी.एस.आर./वृक्षा.–2020–21 बीरगांव,दिनांक 08/02/2021

प्रतिलिपि :–

01. कलेक्टर, जिला–रायपुर छ.ग. की ओर सादर सूचनार्थ सम्प्रेषित।

आयुक्त
नगर पालिक निगम, बीरगांव
जिला–रायपुर (छ.ग.)

कार्यालय नगर पालिक निगम, बीरगांव जिला-रायपुर (छ.ग.)

Email Id: birgaonmcp@gmail.com http://www.nagarnigambirgaon.com

क्रं./ 821 /न.पा.नि./सी.एस.आर./वृक्षा.–2024–25 बीरगांव,दिनांक 29/05/2024

/ /प्रमाण–पत्र/ /

—000—

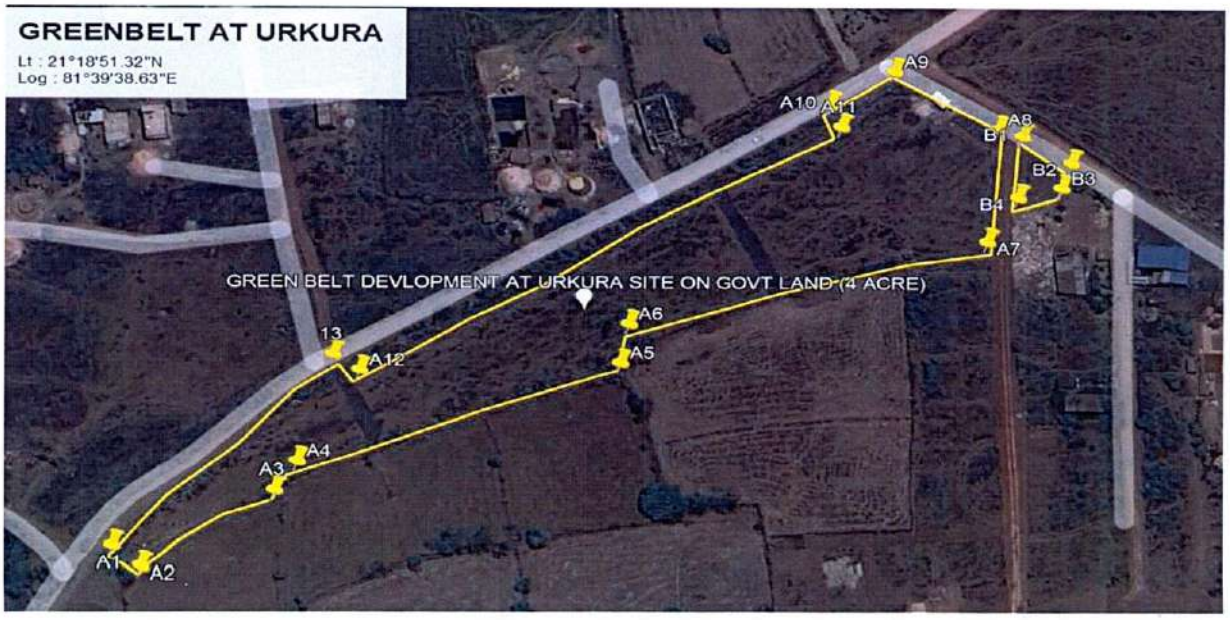
प्रमाणित किया जाता है कि **आलोक फेरो एलॉयज लिमिटेड, उरला इण्डस्ट्रियल काम्प्लेक्स, उरला** द्वारा मान. एन.जी.टी. के आदेश के परिपालन में पर्यावरण संरक्षण–संवर्धन एवं हरियर छत्तीसगढ हेतु CSR मद से प.ह.नं. 108/40, खसरा नं. 341 मौजा उरकुरा स्थित शासकीय भूमि रकबा लगभग 18 एकड़ में से लगभग 4.00 एकड़ क्षेत्र में ऑक्सीजोन/वृक्षारोपण कार्य पूर्ण कर समुचित संधारण किया जा रहा है। कार्य संतोषप्रद है।

पर्यावरण संरक्षण–संवर्धन हेतु कंपनी के उक्त कार्य की सराहना करते हुये हम कंपनी के उज्जवल भविष्य की कामना करते हैं। आशा है आगे भी पर्यावरण संरक्षण–संवर्धन की दिशा में कार्य करते रहेंगे।

आयुक्त
नगर पालिक निगम, बीरगांव
जिला–रायपुर (छ.ग.)

प्रति,

प्रबंध संचालक
आलोक फेरो एलॉयज लिमिटेड
उरला इण्डस्ट्रियल कॉम्प्लेक्स, उरला



कार्यालय नगर पालिक निगम, बीरगांव जिला-रायपुर (छ.ग.)

Email Id: birgaonmcp@gmail.com http://www.nagarnigambirgaon.com

क्रं./1134 /न.पा.नि./सी.एस.आर./वृक्षा.–2024–25 बीरगांव दिनांक 07/06/2024

प्रति,

प्रबंध संचालक
आलोक फेरो एलॉयज लिमिटेड
इण्डस्ट्रियल एरिया उरला

विषय :– सी.एस.आर. मद से मुक्तिधाम बीरगांव में वृक्षारोपण एवं उन्नयन कार्य/सौंदर्यीकरण कार्य कर संधारण करने बाबत्।

संदर्भ :– 01. आपका पत्र क्रं. AFAL/2024-25/CA/21/दिनांक 16.05.2024

—000—

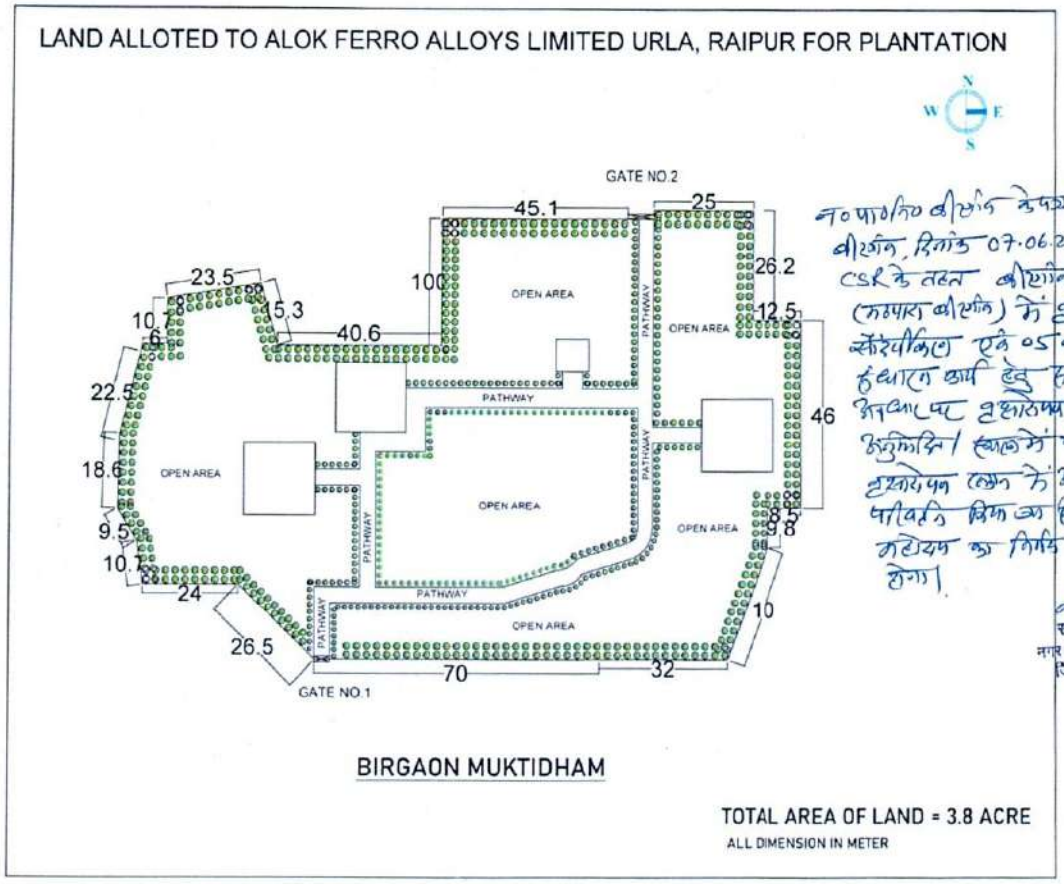
मान. एन.जी.टी. के आदेश के परिपालन में निकाय क्षेत्र में पर्यावरण संरक्षण संवर्धन हेतु आपके द्वारा प्रस्तुत संदर्भित पत्र के आधार पर सी.एस.आर. मद से मुक्तिधाम बीरगांव में वृक्षारोपण एवं उन्नयन कार्य/सौंदर्यीकरण कार्य कर न्यूनतम 05 वर्षों तक समुचित संधारण करने की सहमति प्रदान की जाती है।

अयुक्त
नगर पालिक निगम, बीरगांव
जिला–रायपुर (छ.ग.)

पृ.क्रं./ /न.पा.नि./सी.एस.आर./वृक्षा.–2024–25 बीरगांव दिनांक ...../...../2024
प्रतिलिपि,

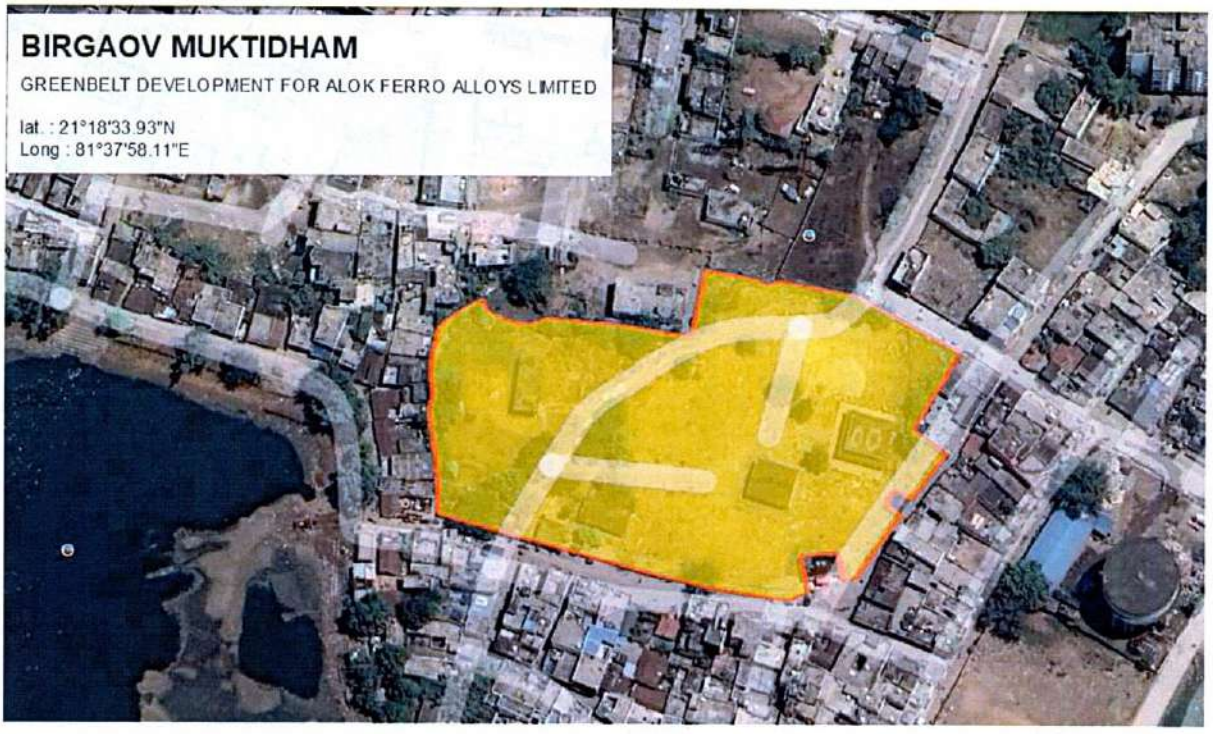
01. कलेक्टर, जिला–रायपुर (छ.ग.) की ओर सादर सूचनार्थ सम्प्रेषित।
02. सर्वसंबंधित कार्यपालन अभियंता/सहा. अभियंता/उप अभियंता नगर पालिक निगम बीरगांव को आवश्यक कार्यवाही हेतु सूचनार्थ।

आयुक्त
नगर पालिक निगम बीरगांव
जिला–रायपुर (छ.ग.)



नगर पालिक निगम बीरगांव के पत्रांक-/1134/ बीरगांव, दिनांक 07.06.2024 द्वारा CSR के तहत बीरगांव मुक्तिधाम (मरघा बीरगांव) में वृक्षारोपण, कॉरीबाउंड एवं 05 नग्गी लगे हुए स्थान की हुई मांग के अनुसार वृक्षारोपण कार्य / विकास अनुमोदित / स्वीकृत किया जाता है। वृक्षारोपण कार्य के आगामी कार्यक्रम पार्षद क्षेत्र के अनुसार किया जाना है। संयुक्त कार्यालय का निर्णय अंतिम व बंधनकारी होगा।

सहायक अभियंता
नगर पालिक निगम, बीरगांव
जिला-रायपुर (छ.ग.)
18/06/2024



Annexure VII: Ek Ped Maa ke Naam Campaign

ALOK FERRO ALLOYS LIMITED

PLOT NO. 458/1, 459, URLA INDUSTRIAL AREA URLA RAIPUR CHHATTISGARH

PHOTOGRAPHS COMPAGAIN UNDER "EK PED MAA KE NAME"

HIRA
वृक्षारोपण – अभियान
"एक पेड़ माँ के नाम"
स्थान – मुक्तिधाम बिटगांव (नगर पालिका निगम बिटगांव
जिला रायपुर, छत्तीसगढ़)
दिनांक – 04 जुलाई 2024, गुरुवार
LIMITED
DIST - RAIPUR (C.G.)

Annexure VIII: PO for CO Sensors

ALOK FERRO ALLOYS LIMITED(FERRO DIVISION).

PLOT NO 458/1, 459, Urla Industrial Complex Urla, Raipur-492003 (C.G.)
CIN No :-

Purchase Order

Portal PO No : 030674

Details Of Supplier

SWAN ENIVRONMENTAL PVT LTD
PLOT NO 922 AND 935, SWAMI AYYAPPA COOPERATIVESOCIETY, MADHAPUR, Hyderabad, Telangana, 500081,HYDERABAD,Telangana,INDIA

State Name : Telangana State Code :
GSTIN : **36AADCS4126R1ZW**
PAN No. : AADCS4126R
Contact Detail : Mo.No : 9642225061 | Ph.No :
Email : service.enviro@swanenviron.in

Order No. : Date : **06/01/2026**
Amend No. : **0** Date : **06/01/2026**
Party Ref. No. :
Party Ref. Date :
Indent No. : FERRO\25-26\PR\0523 (06/01/2026)

Delivery Address

ALOK FERRO ALLOYS LIMITED(FERRO DIVISION).
PLOT NO 458/1, 459, Urla Industrial Complex Urla, Raipur-492003 (C.G.)

State Name : Chhattisgarh State Code :
GSTIN : **22AACCA0569P1ZL**
PAN No. : AACCA0569P CIN :
Contact Detail : 0771-4082850 / 60

Billing Address

PLOT NO 458/1, 459, Urla Industrial Complex Urla, Raipur-492003 (C.G.)

State Name : Chhattisgarh State Code :
GSTIN : **22AACCA0569P1ZL**
PAN No. : AACCA0569P CIN :
Contact Detail : 0771-4082850 / 60

SNo.	Description of Goods	Order Qty.	UOQ	Rate(Per Unit)	Tax on Amount	CGST	SGST	IGST	CESS	Net Amount
#				Discount		Value	Value	Value	Value	
1	**SIGNAL ISOLATOR SINGLE CHANNEL DUAL OUTPUT** INPUT 4 TO 20 mA DUAL OUTPUT 4 TO 20 mA Make: GENERAL **Delivery Date : 15/03/2026** **HSN/SAC No. : 8504**	**1.000**	**NOS**	**10000.0000**	**10000.00**			**18.00** **1800.00**		**11800.00**
2	**ONLINE CARBON MONOXIDE (CO) GAS DETECTOR** Model No: AG210 Part No: GD D 003 HSN No: 90271000 Make: AIYI Technolozies Range: 0-1000 ppm Features: * Advanced gas sensors, fast response with a long lifespan, safer and more reliable. * IP65 design with body material in stainless steel and aluminum alloy, suitable for harsh environments. * LCD display, with LED indicators. * Built-in 3 relay output * Full English menu, remote control operation. * Complete product certification * HOOTER Make: **Delivery Date : 15/03/2026** **HSN/SAC No. : 8504**	**1.000**	**NOS**	**115000.0000**	**115000.00**			**18.00** **20700.00**		**135700.00**
3	**ANALOG TO DIGITAL CONVERTER** MODEL ICP CON ET 7017 Make: **Delivery Date : 15/03/2026** **HSN/SAC No. : 8504**	**1.000**	**NOS**	**35000.0000**	**35000.00**			**18.00** **6300.00**		**41300.00**
	Total	**3.00**			**160000.00**			**28800.00**		

INTEGRATED GST	28800.0000
Total GST Value	**28800.00**
Total Invoice Value	**188800.00**

Total Invoice Value (In Words) **Rs. One Lac Eighty Eight Thousand Eight Hundred**

Remarks

FOR CO MEASURING FOR FERRO FURNANCE

Payment Terms

Down Payment -- 20.00 % on Net Amount within 7 Days
Down Payment - PI -- 70.00 % on Net Amount within 7 Days
Against Bill -- 10.00 % on Balance Amount within 7 Days

Terms & Condition

Freight Type : FOR
WARRANTY : AGAINST QUALITY/ MANUFACTURING DEFECT
INSURANCE : NA
TEST CERTIFICATE : SUBMIT ALL THE NECESSARY DOCUMENTS ALONG WITH MATERIAL/TAX INVOICE

ALOK FERRO ALLOYS LIMITED(FERRO DIVISION).

PLOT NO 458/1, 459, Urla Industrial Complex Urla, Raipur-492003 (C.G.)
CIN No :-

Purchase Order

Portal PO No : 030674

FREIGHT (DELIVERY TERM)	: FOR OUR PLANT
INSPECTION	: INSPECTION WILL BE DONE BY OUR SITE .
PACKAGING & FORWARDING	: INCLUSIVE
LOADING & UNLOADING CHARGES	: INCLUSIVE
LD CLAUSE	: LD APPLICABLE BY (The day the advance is sent will be the first day and LD clues will start 56 days after that.If you are unable to deliver the material within 56 days, then 0.5% per week amount will be deducted from the basic amount.
REMARKS	: PLEASE MENTION REFFERANCE PURCHASE ORDER NUMBER IN YOUR TAX INVOICE.

SPECIAL TERMS AND CONDITIONS :-

1.All Challan with suppliers should bear our order references,full descriptions of items,item code.
2.Rejection on account of quality,specification,delivery will be on your A/c.
3.Reject materials must be collected from our work immediately on receipt of rejection advice.
4.TRANSIT INSURANCE : To be converted by you/us.please inform dispatch particular by fax immediately.
5.The supplier is expected to scrutinize the purchase order immediately on receipt thereof.
6.No objection regarding errors & ommision,if any,shall not be entertained after the expiry of 10 days from date of the receipt of order.
7.Bank commission on your account.
8.BANKERS:(1) SBI Comm.Branch, Pachpedi Naka, Raipur (C.G)
9.All disputes are subject to Raipur jurisdiction.

GENERAL TERMS AND CONDITIONS :-

CANCELLATION OF ORDER: The Company reserves the right to cancel this order unilaterally, either partially or in full. In case of deliveries fail to meet the schedule specified, quality standards , performance of the solution / equipment in this order or any subsequent amendments , the Company may also exercise this right. This clause remains effective regardless of any liquidated damages provisions included in this order.

RISK PURCHASE: If you fail to execute the Order to our satisfaction and within the delivery period indicated in the supply order or any amendment there of subsequently issued, without valid and acceptable reasons, this company shall arrange procurement of undelivered items at your risk and cost and such undelivered items shall automatically be treated as cancelled from the purchase Order placed on you.

INSPECTION: The material shall be subject to inspection at firm's place/at consignee's place before dispatch/on receipt at consignee's place. The rejected materials will be subject to replacement/ removal by you at your risk, cost and responsibility. In case of outstation firm, unaccepted goods shall be returned freight to pay after dues, if any, like freight, Octroi etc. paid by the Company are refunded by you.

WARRANTY: Goods / articles to be supplied under this purchase order shall be of the best quality and workmanship and shall be strictly in accordance with the specifications and particulars mentioned in the purchase order. Further, these shall be covered under the warranty that goods / articles under this order would continue to confirm to the specifications and quality mentioned in the supply order for a period of 12 month from the date of receipt/delivery of goods by the Company/supplier, notwithstanding the fact that the
Company inspector may have initially inspected or approved the goods on receipt. If during the period of warranty of the goods are found to be not conforming to the specifications/ quality mentioned in the supply order or found to have deteriorated prematurely it shall be binding on the supplier to replace the goods immediately and within a period of the month of receipt of intimation from the Company or refund the total cost of the goods including Octroi , freight charges etc. to the Company at our discretion.

PERFORMANCE GUARANTEE: All goods / articles under this order shall be subject to a guarantee for satisfactory performance for a period of One year from the date of satisfactory receipt and in case any manufacturing defect is noticed during this guarantee period the goods/ articles shall be subject to free rectification/ replacement within a period of one month.

REJECTION CLAUSE: Any item rejected due to deviation in specification or material defect/ dimensional defect or due to any major deviation on the Purchase Order terms, HIRA has the sole authority to decide in the matter. After getting intimation of the rejection note on any supply, the supplier should immediately arrange lifting of the item free of cost and if the item is not lifted from HIRA plant premises within a maximum of three months (90 days), HIRA has the right to dispose-off the item at supplier's risk and cost.

DELIVERY INSTRUCTION: The goods should be securely packed and dispatched / delivered to the consignee along with challan in triplicate by Train / Truck / Any other mode mutually decided. The goods should reach in properly packed condition and any damage during transit shall be at supplier's risk unless insurance in transit is bore by buyer specifically mentioned.

TAXES: If payable extra, the purchase orders to be shown / claimed separately. Your GST Registration No. should be quoted on the bill. Your bill for the supply should bear reference to this purchase order and be submitted in triplicate to the Purchase Department after the Order has been fully executed.
In case dispatch documents are to be negotiated through Bank, intimation about the same should invariably be sent to this Office in advance along with a copy of your bill in the absence of which the documents shall not be cleared by the Company Wharfage / Demurrage charges levied on account of late receipt of intimation of RR / Advance Copy of bill etc. shall be debited to supplier, bank charges shall be to your account.

DISPUTE: The court of the place from where this purchase order has been issued shall alone have jurisdiction to decide any dispute arising out of or in respect of this purchase order.

ARBITRATION: Both the parties shall try to resolve their differences or disputes pertaining to this purchase in an amicable manner, failing which the difference or dispute may be referred to an Arbitrator as per procedure laid down under the Arbitration and Conciliation Act 1996. The outcome of Arbitration shall be final and binding upon both parties. The venue of Arbitration shall be at Raipur (Chhattisgarh), India.

FORCE MAJEURE CLAUSE : In the event of force majeure the obligations of both seller and buyer will be suspended until after the end of thereof. If the force majeure lasts longer than 60 days either party shall be entitled to cancel, by means of a written declaration and without court intervention, whole or part of the Agreement, in case of force majeure Buyer and Seller shall not be liable for any losses suffered as a result thereof by the other party or its business relations.
In any event Parties shall be able to claim force majeure in case of strike, lock-outs, labour disputes, sabotage, storm, floods and other natural phenomena, explosion, accidents, fire, war or acts of war, international conflicts, civil commotion, riot, insurrection, piracy, terrorism, blockade, epidemic, quarantine, embargo, mobilization, restraints of whichever kind, export or import restrictions or prohibitions, institutions, of quota and /or other measures or acts of any government, international organization or agency thereof.

Receipt of the Purchase Order may kindly be acknowledged.

For **ALOK FERRO ALLOYS LIMITED(FERRO DIVISION).**

CHETAN SAHU

ALOK FERRO ALLOYS LIMITED(FERRO DIVISION).

PLOT NO 458/1, 459, Urla Industrial Complex Urla, Raipur-492003 (C.G.)
CIN No :-

Purchase Order

Portal PO No : 030674

Created By

Annexure IX: Soil Monitoring Report

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1ZS

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

Registered Office: 63/1, Kailash Vihar, Near Income Tax Office, City Center-II, Gwalior-474 011, M.P., India
0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/ TCLP/S-27122025/01			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date & Time	:	27/12/2025	Sampling Type	:	-
Sample Receipt Date	:	30/12/2025	Sample ID	:	TCLP/S-27122025/01
Sampling Location	:	TCLP test of Soil (Material Yard)	Sample Description	:	Soil (Collected Near Material yard)
Sample Collected / Submitted by	:	Lab representative	Protocol used for monitoring	:	NA
Quantity / No. of Sample	:	500mg/1Nos.	Analysis Started On	:	30/12/2025
Packing / Seal	:	Seal Pack	Analysis Completed On	:	06/01/2026
Environmental Condition during the test			Clear sky		

TEST RESULT TCLP (Toxicity Characteristic Leaching Procedure) OF SOIL

SR.NO.	PARAMETER	UNIT	METHOD OF TEST	LIMIT SCHEDULE II *[See rule 3(1) (17) (ii)]*	RESULT
1	Manganese as Mn	mg/Kg	USEPA METHOD - 1311	10	1.23
2	Zinc as Zn	mg/Kg	USEPA METHOD - 1311	250	2.4
3	Lead as Pb	mg/Kg	USEPA METHOD - 1311	5.0	0.8
4	Cadmium as Cd	mg/Kg	USEPA METHOD - 1311	1.0	N.D.
5	Chromium as Cr	mg/Kg	USEPA METHOD - 1311	5	1.10
6	Arsenic as As	mg/Kg	USEPA METHOD - 1311	5.0	N.D.
7	Mercury as Hg	mg/Kg	USEPA METHOD - 1311	0.2	N.D.
8	Nickel as Ni	mg/Kg	USEPA METHOD - 1311	20.0	0.11
9.	Copper as Cu	mg/Kg	USEPA METHOD - 1311	10	0.08

Authorized Signatory

****End of the Report****

Note:

1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15 days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15days.
4. The above Results are related to the tested Sample Only.

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1ZS

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

Registered Office: 63/1, Kailash Vihar, Near Income Tax Office, City Center-II, Gwalior-474 011, M.P., India
0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

10.	Aluminum as Al	mg/Kg	USEPA METHOD - 1311	-	N.D.

TEST REPORT

Report No.: AETRL/ TCLP/S-27122025/02			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date & Time	:	27/12/2025	Sampling Type	:	-
Sample Receipt Date	:	30/12/2025	Sample ID	:	TCLP/S-27122025/02
Sampling Location	:	TCLP test of Soil (Ferro area)	Sample Description	:	Soil (Collected Near Material yard Ferro area)
Sample Collected / Submitted by	:	Lab representative	Protocol used for monitoring	:	NA
Quantity / No. of Sample	:	500mg/1Nos.	Analysis Started On	:	30/12/2025
Packing / Seal	:	Seal Pack	Analysis Completed On	:	06/01/2026
Environmental Condition during the test			Clear sky		

TEST RESULT TCLP (Toxicity Characteristic Leaching Procedure) OF SOIL

SR.NO.	PARAMETER	UNIT	METHOD OF TEST	LIMIT SCHEDULE II *[See rule 3(1) (17) (ii)]*	RESULT
1	Manganese as Mn	mg/Kg	USEPA METHOD - 1311	10	1.30
2	Zinc as Zn	mg/Kg	USEPA METHOD - 1311	250	2.1
3	Lead as Pb	mg/Kg	USEPA METHOD - 1311	5.0	0.7
4	Cadmium as Cd	mg/Kg	USEPA METHOD - 1311	1.0	N.D.
5	Chromium as Cr	mg/Kg	USEPA METHOD - 1311	5	1.13
6	Arsenic as As	mg/Kg	USEPA METHOD - 1311	5.0	N.D.
7	Mercury as Hg	mg/Kg	USEPA METHOD - 1311	0.2	N.D.
8	Nickel as Ni	mg/Kg	USEPA METHOD - 1311	20.0	0.10
9.	Copper as Cu	mg/Kg	USEPA METHOD - 1311	10	0.09
10.	Aluminum as Al	mg/Kg	USEPA METHOD - 1311	-	N.D.

Authorized Signatory

****End of the Report****

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Annexure X: Photographs of OCEMS and CAQMS

ALOK FERRO ALLOYS LIMITED
PLOT NO. 458/1, 459, ULRA INDUSTRIAL AREA, URLA RAIPUR CHHATTISGARH 492003

ENCLOUSRE 2 (C)

.PHOTOGRAPHS OPACITY METER

ALOK FERRO ALLOYS LTD.
HIRA
RAIPUR (C.G.)

ALOK FERRO ALLOYS LIMITED
PLOT NO. 458/1, 459, ULRA INDUSTRIAL AREA, URLA RAIPUR CHHATTISGARH 492003

POWER PLANT

PHOTOGRAPHS OF CEMS (CONTINOUS EMISSION MONITORING SYSTEM)

OPACITY METER

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

ALOK FERRO ALLOYS LIMITED
PLOT NO. 458/1, 459, ULRA INDUSTRIAL AREA, URLA RAIPUR CHHATTISGARH 492003

MICRO AMBIENT AIR QUALITY MONITORING STATION

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

Annexure XI: Ambient Air Monitoring Report

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

Registered Office: 63/1, Kailash Vihar, Near Income Tax Office, City Center-II, Gwalior-474 011, M.P., India
0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/AA-27122025/01			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date	:	27/12/2025 to 28/12/2025	Sampling Type	:	NA
Sample Receipt Date	:	30/12/2025	Sample ID	:	AA-27122025/01
Sampling Location	:	Near Main Gate	Sample Description	:	Ambient Air
Sample Collected / Submitted by	:	Lab Representative	Protocol used for monitoring	:	IS 5182 (Part - 14)
Quantity / No. of Sample	:	One Ambient Air	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	06/01/2026
Meteorological condition during monitoring			Clear sky		

AMBIENT AIR ANALYSIS RESULTS

Sr. No.	Parameter	Result	Unit	Protocol used for Analysis	NAAQS
1	Particulate Matters PM_{10}	78	$\mu g/m^3$	IS 5182 (Part 23) 2022	100(Max.)
2	Particulate Matters $PM_{2.5}$	34	$\mu g/m^3$	IS 5182 (Part 24) 2024	60(Max.)
3	Sulphur Dioxide as SO_2	11.4	$\mu g/m^3$	IS 5182 (Part 2) 2023	80(Max.)
4	Nitrogen Dioxide as NO_2	21.4	$\mu g/m^3$	IS 5182 (Part 6) 2022	80(Max.)
5	Carbon Monoxide as CO	0.29	mg/m^3	IS 5182 (Part 10) 2022	4.0(Max.)

Authorized Signatory

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Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

Approved: by Occupational Health &Safety Management (ISO45001:2018)
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Registered Office: 63/1, Kailash Vihar, Near Income Tax Office, City Center-II, Gwalior-474 011, M.P., India
0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/AA-28122025/02			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date	:	28/12/2025 to 29/12/2025	Sampling Type	:	NA
Sample Receipt Date	:	30/12/2025	Sample ID	:	AA-28122025/02
Sampling Location	:	Near Electrical Room (Ferro Alloys Area)	Sample Description	:	Ambient Air
Sample Collected / Submitted by	:	Lab Representative	Protocol used for monitoring	:	IS 5182 (Part - 14)
Quantity / No. of Sample	:	One ambient air	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	06/01/2026
Meteorological condition during monitoring			Clear sky		

AMBIENT AIR ANALYSIS RESULTS

Sr. No.	Parameter	Result	Unit	Protocol used for Analysis	NAAQS
1	Particulate Matters PM_{10}	72	µg/m³	IS 5182 (Part 23) 2022	100(Max.)
2	Particulate Matters $PM_{2.5}$	32	µg/m³	IS 5182 (Part 24) 2024	60(Max.)
3	Sulphur Dioxide as SO_2	10.9	µg/m³	IS 5182 (Part 2) 2023	80(Max.)
4	Nitrogen Dioxide as NO_2	20.4	µg/m³	IS 5182 (Part 6) 2022	80(Max.)
5	Carbon Monoxide as CO	0.4	mg/m³	IS 5182 (Part 10) 2022	4.0(Max.)

Authorized Signatory

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0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/AA-27122025/03			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date	:	27/12/2025 to 28/12/2025	Sampling Type	:	NA
Sample Receipt Date	:	30/12/2025	Sample ID	:	27122025/03
Sampling Location	:	Power Plant Area Near CHP	Sample Description	:	Ambient Air
Sample Collected / Submitted by	:	Lab Representative	Protocol used for monitoring	:	IS 5182 (Part - 14)
Quantity / No. of Sample	:	One ambient air	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	06/01/2026
Meteorological condition during monitoring			Clear sky		

AMBIENT AIR ANALYSIS RESULTS

Sr. No.	Parameter	Result	Unit	Protocol used for Analysis	NAAQS
1	Particulate Matters PM_{10}	74	$\mu g/m^3$	IS 5182 (Part 23) 2022	100(Max.)
2	Particulate Matters $PM_{2.5}$	33	$\mu g/m^3$	IS 5182 (Part 24) 2024	60(Max.)
3	Sulphur Dioxide as SO_2	11.6	$\mu g/m^3$	IS 5182 (Part 2) 2023	80(Max.)
4	Nitrogen Dioxide as NO_2	20.4	$\mu g/m^3$	IS 5182 (Part 6) 2022	80(Max.)
5	Carbon Monoxide as CO	0.32	mg/m^3	IS 5182 (Part 10) 2022	4.0(Max.)

Authorized Signatory

****End of the Report****

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0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/AA-28122025/04			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date	:	28/12/2025 to 29/12/2025	Sampling Type	:	NA
Sample Receipt Date	:	30/12/2025	Sample ID	:	AA-28122025/04
Sampling Location	:	Near Gate No. 02 CPP Area	Sample Description	:	Ambient Air
Sample Collected / Submitted by	:	Lab Representative	Protocol used for monitoring	:	IS 5182 (Part - 14)
Quantity / No. of Sample	:	One Ambient Air	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	06/01/2026
Meteorological condition during monitoring			Clear sky		

AMBIENT AIR ANALYSIS RESULTS

Sr. No.	Parameter	Result	Unit	Protocol used for Analysis	NAAQS
1	Particulate Matters PM_{10}	76	$\mu g/m^3$	IS 5182 (Part 23) 2022	100(Max.)
2	Particulate Matters $PM_{2.5}$	35	$\mu g/m^3$	IS 5182 (Part 24) 2024	60(Max.)
3	Sulphur Dioxide as SO_2	10.9	$\mu g/m^3$	IS 5182 (Part 2) 2023	80(Max.)
4	Nitrogen Dioxide as NO_2	21.4	$\mu g/m^3$	IS 5182 (Part 6) 2022	80(Max.)
5	Carbon Monoxide as CO	0.28	mg/m^3	IS 5182 (Part 10) 2022	4.0(Max.)

Authorized Signatory

****End of the Report****

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Annexure XII: Fugitive Emission Monitoring Report

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

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0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/FE-27122025/01			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date	:	27/12/2025	Sampling Type	:	NA
Sample Receipt Date	:	30/12/2025	Sample ID	:	FE-27122025/01
Sampling Location	:	Near Fly ASH Silo	Sample Description	:	Fugitive emission
Sample Collected / Submitted by	:	Lab representative	Protocol used for monitoring	:	IS 5182 (Part - 14)
Quantity / No. of Sample	:	One/ Fugitive emission	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	06/01/2026
Meteorological condition during monitoring			Clear sky		

FUGITIVE EMMISSION ANLYSIS RESULTS

Sr. No.	Parameter	Result	Unit	Protocol used for Analysis	Limit
1	Total Suspended Particulate matter (SPM)	430	µg/m³	EPA METHOD IO 2.1	2000

Authorized Signatory

****End of the Report****

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Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

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Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/FE-28122025/02			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date	:	28/12/2025	Sampling Type	:	NA
Sample Receipt Date	:	30/12/2025	Sample ID	:	FE-28122025/02
Sampling Location	:	Main gate	Sample Description	:	Fugitive emission
Sample Collected / Submitted by	:	Lab representative	Protocol used for monitoring	:	IS 5182 (Part - 14)
Quantity / No. of Sample	:	One/ Fugitive emission	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	06/01/2026
Meteorological condition during monitoring			Clear sky		

Fugitive Emission Analysis Results

Sr. No.	Parameter	Result	Unit	Protocol used for Analysis	Limit
1	Total Suspended Particulate matter (SPM)	380	µg/m³	EPA METHOD IO 2.1	2000

Authorized Signatory

****End of the Report****

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Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

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Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/FE-27122025/03			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date	:	27/12/2025	Sampling Type	:	NA
Sample Receipt Date	:	30/12/2025	Sample ID	:	FE-27122025/03
Sampling Location	:	Material Gate	Sample Description	:	Fugitive emission
Sample Collected / Submitted by	:	Lab representative	Protocol used for monitoring	:	IS 5182 (Part - 14)
Quantity / No. of Sample	:	One/ Fugitive emission	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	06/01/2026
Meteorological condition during monitoring			Clear sky		

Fugitive Emission Analysis Results

Sr. No.	Parameter	Result	Unit	Protocol used for Analysis	Limit
1	Total Suspended Particulate matter (SPM)	460	µg/m³	EPA METHOD IO 2.1	2000

Authorized Signatory

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Advanced Environmental Testing And Research Lab P. Ltd.

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Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/FE-28122025/04			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date	:	28/12/2025	Sampling Type	:	NA
Sample Receipt Date	:	30/12/2025	Sample ID	:	FE-28122025/04
Sampling Location	:	Furnace area	Sample Description	:	Fugitive emission
Sample Collected / Submitted by	:	Lab representative	Protocol used for monitoring	:	IS 5182 (Part - 14)
Quantity / No. of Sample	:	One/ Fugitive emission	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	06/01/2026
Meteorological condition during monitoring			Clear sky		

Fugitive Emission Analysis Results

Sr. No.	Parameter	Result	Unit	Protocol used for Analysis	Limit
1	Total Suspended Particulate matter (SPM)	480	µg/m³	EPA METHOD IO 2.1	2000

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Annexure XIII: Technical Specification of Air Pollution Control Equipment

Technical specification of Air Pollution Control Equipment

Technical Specification of Bag Filters

S.NO.	PARTICULATES	1 x 4.5 MVA	1 x 4.5 MVA	1 x 4.5 MVA
1	Furnace No.	1	2	3
2	Pollution Control System	Pulse Jet Bag House Filter with Heat Exchanger	Pulse Jet Bag House Filter with Heat Exchanger	
3	Cooling Unit	Heat Exchanger with Lp Economiser and FG cooler	Heat Exchanger with Lp Economiser and FG cooler	
4	No Of Id Fans in Heat Exchanger	FD FAN: 1 NOS.	FD FAN: 2 NOS.	
5	Furnace Cooling System	Close-Cooling System - Common to All Three Furnace		
6	Transformaer Cooling	Wet Cooling System	Wet Cooling System	Wet Cooling System
7	Fuel Used	Electricity	Electricity	Electricity
8	Type Of Pollution Control System	Pulse Jet Bag House Filter with Heat Exchanger	Pulse Jet Bag House Filter with Heat Exchanger	
9	Application	Fume Extraction System for Furnace	Fume Extraction System for Furnace	
10	Volumatric Flow Rate of Flue Gas (Nm3/Hr)	72400	2 x72400	
11	Gas Volume M3/Hrs	52400 M3 /HRS	52400 X 2 M3 / HRS	
12	Resistance	460 mmWC	460 mmWC	
13	Bag Size	150 x 4200	150 x 4200	
14	No. Of Compartment in Bag House	4	8	
16	No Of Bags in Each Compartment	168	144	
16	Total No. Of Bags	672	1152	
17	Inlet Dust Load (gm/Nm3)	5	5	
18	Outlet Dust Load (mg/Nm3)	<30	<30	
20	Dust Handled	Fume Coming During the Manufacturing Process of Ferro Alloys Unit	Fume Coming During the Manufacturing Process of Ferro Alloys Unit	
21	No. of Id Fans	1 NOS.	2 Nos.	
22	No. of FG Cooler Fans	3 NOS	4 Nos.	

Technical Specification of ESP (Electrostatic Precipitator)

ESP Make	**Unit**	**M/S THERMAX LIMITED**
		Indian Coal
Design Volume	Am3/hr	67979
Design Temperature	°C	150
Maximum Inlet Dust Load	Gm/Nm3	55
Outlet Emission	Mg/Nm3	Less than-<30
Moisture In Gas	% w/w	11.891
Collection Area	m2	1653
Specific Collection Area	m2/m3/s	87.50
No. Of Gas Passages	NOS.	13
Velocity Through Esp	M/S	0.47
Residence Time	SEC.	17.80
Migration Velocity	CM/SEC	6.74

Annexure XIV: Photographs of APCS

ALOK FERRO ALLOYS LIMTED

PLOTS NO. 458/1,459, URLA INDUSTRIAL AREA, URLA RAIPUR (C.G.)

Photographs of upgraded/modified Pollution Control System

Annexure XV: Premises Cleaning Photographs

ALOK FERRO ALLOYS LIMITED

PREMISES CLEANING PHOTOGRAPHS

OHC
GATE NO. 03
TIME OFFICE
ALL DIVISIONS
ASHOK VATIKA
WEIGH BRIDGE NO. 01
परिवर्तन तब आता है जब आम लोग
असाधारण चीजें करने का निर्णय लेते हैं

Annexure XVI: Photographs of Closed Conveying System

ALOK FERRO ALLOYS LIMITED

PLOT NO. 458/1, 459, URLA INDUSTRIAL AREA, URLA RAIPUR CHHATISGARH

CLOSED CONYING SYSTEM FOR TRANSFER OF MATERIAL

ALOK FERRO ALLOYS LIMITED

PLOT NO. 458/1, 459, URLA INDUSTRIAL AREA, URLA RAIPUR CHHATISGARH

CLOSED CONYING SYSTEM FOR TRANSFER OF MATERIAL

ALOK FERRO ALLOYS LIMITED

PLOT NO. 458/1, 459, URLA INDUSTRIAL AREA, URLA RAIPUR CHHATISGARH

CLOSED CONYING SYSTEM FOR TRANSFER OF MATERIAL

ALOK FERRO ALLOYS LIMITED

PLOT NO. 458/1, 459, URLA INDUSTRIAL AREA, URLA RAIPUR CHHATISGARH

CLOSED CONYING SYSTEM FOR TRANSFER OF MATERIAL

Annexure XVII: Performance monitoring report of Bag Filters and ESP

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

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0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TESTREPORT

Report No.: AETRL/ BF-27012025/01			Date:		06/01/2026
Customer Name & Address	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Date of Sample Collection	:	27/01/2025	Sampling Type	:	Isokinetic
Date of Sample Received	:	30/12/2025	Sample ID	:	BF-27012025/01
Sampling Location	:	Bag Filter_2 of 2x4.5 MAV SAF	Sample Description	:	Bag Filter
Sample Collected / Submitted by	:	GECPL Team	Protocol used for Sampling	:	CPCB Guideline
Quantity / No. of Sample	:	1Nos.	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	06/01/2026
Environmental Condition during the test			Clear Sky		

Bag Filter Performance Test

Sr. No.	Parameter	Unit	Design Parameter	Operating Condition	Remarks / Observation
1	Bag Filter Chambers	Nos.	08	08	Matches design – OK
2	Filter Bags per Chamber	Nos.	144	144	Matches design – OK
3	Total Filter Bags	Nos.	1152	1152	Correct (8 × 144) – OK
4	Filter Bag Material	–	Polyester Needle Felt	Polyester Needle Felt	As per design – OK
5	Filter Bag Size (Dia × Length)	mm	150 × 4200	150 × 4200	As per specification – OK
6	Cleaning System	–	Pulse Jet	Pulse Jet	As per design – OK
7	Solenoid Valve Size	mm	40	40	As per design – OK
8	Mode of Operation	–	DP / Timer	Timer Mode	Acceptable; DP mode preferable for energy efficiency
9	Solenoid Valves in Operation	Nos.	96	96	Correct for pulse jet system – OK
10	Operating Air Pressure	kg/cm^2	5	5	Within recommended range – OK
11	ID Fan Flow Rate	Nm^3/hr	144,000	102,400	Operating at ~71% of design flow; indicates partial load operation
12	ID Fan Speed	RPM	980	942	Reduced speed consistent with lower flow – OK
13	Bag Filter Outlet Static Pressure	mmWC	120	198	Higher than design due to dust loading / lower flow

Authorized Signatory

Note:

media without our special permission in writing.

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3. Any discrepancy in test result should be reported within 15days.
4. The above Results are related to the tested Sample Only.

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

Registered Office: 63/1, Kailash Vihar, Near Income Tax Office, City Center-II, Gwalior-474 011, M.P., India
0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TESTREPORT

Report No.: AETRL/ BF-27012025/01			Date:		06/01/2026
Customer Name & Address	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Date of Sample Collection	:	27/01/2025	Sampling Type	:	Isokinetic
Date of Sample Received	:	30/12/2025	Sample ID	:	BF-27012025/01
Sampling Location	:	Bag Filter_2 of 2x4.5 MAV SAF	Sample Description	:	Bag Filter
Sample Collected / Submitted by	:	GECPL Team	Protocol used for Sampling	:	CPCB Guideline
Quantity / No. of Sample	:	1Nos.	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	06/01/2026
Environmental Condition during the test			Clear Sky		

Bag Filter Performance Test

Sr. No.	Parameter	Unit	Design Parameter	Operating Condition	Remarks / Observation
14	Bag Filter Inlet Static Pressure	mmWC	–	102	Measured value acceptable
15	Differential Pressure across Bag Filter	mmWC	120	175	Within acceptable operating range (100–200 mmWC)
16	Bag Filter Inlet Temperature	°C	–	160	Within polyester bag limit (<180°C) – Safe
17	Bag Filter Outlet Temperature	°C	–	74.4	Indicates effective cooling / dilution
18	Bag Filter Inlet Dust Concentration	mg/Nm^3	–	42.3	Moderate dust loading
19	Bag Filter Outlet Dust Concentration	mg/Nm^3	50	28.0	Complies with CPCB/SPCB norms

Authorized Signatory

****End of the Report****

Note:

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0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/ BF-28012025/02			Date:		06/01/2026
Customer Name & Address	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Date of Sample Collection	:	28/01/2025	Sampling Type	:	Isokinetic
Date of Sample Received	:	30/12/2025	Sample ID	:	BF-28012025/02
Sampling Location	:	Bag Filter_1 (4.5 MAV SAF-1)	Sample Description	:	Bag Filter
Sample Collected / Submitted by	:	GECPL Team	Protocol used for Sampling	:	CPCB Guideline
Quantity / No. of Sample	:	1Nos.	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	06/01/2026
Environmental Condition during the test			Clear Sky		

Bag Filter Performance Test

Sr. No.	Parameter	Unit	Design Parameter	Operating Condition	Remarks / Observation
1	Bag Filter Chambers	Nos.	04	04	As per design – Correct
2	Filter Bags per Chamber	Nos.	168	168	As per design – Correct
3	Total Filter Bags	Nos.	672	672	Correct (4 × 168) – OK
4	Filter Bag Material	–	Polyester Needle Felt	Polyester Needle Felt	Suitable for operating temperature – OK
5	Filter Bag Size (Dia × Length)	mm	150 × 4200	150 × 4200	Matches specification – OK
6	Cleaning System	–	Pulse Jet	Pulse Jet	Standard and effective – OK
7	Solenoid Valve Size	mm	40	40	As per system design – OK
8	Mode of Operation	–	DP / Timer	Timer Mode	Acceptable; DP mode recommended for optimized cleaning
9	Solenoid Valves in Operation	Nos.	56	56	Correct distribution for pulse jet cleaning – OK
10	Operating Air Pressure	kg/cm^2	5	5	Within recommended operating range – OK
11	ID Fan Flow Rate	Nm^3/hr	72,000	63,880	Operating at ~89% of design flow; normal partial-load operation
12	ID Fan Speed	RPM	980	940	Reduced speed consistent with reduced flow – OK
13	Bag Filter Outlet Static Pressure	mmWC	460	340	Lower than design due to reduced airflow – Acceptable

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TEST REPORT

Report No.: AETRL/ BF-28012025/02			Date:		06/01/2026
Customer Name & Address	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Date of Sample Collection	:	28/01/2025	Sampling Type	:	Isokinetic
Date of Sample Received	:	30/12/2025	Sample ID	:	BF-28012025/02
Sampling Location	:	Bag Filter_1 (4.5 MAV SAF-1)	Sample Description	:	Bag Filter
Sample Collected / Submitted by	:	GECPL Team	Protocol used for Sampling	:	CPCB Guideline
Quantity / No. of Sample	:	1Nos.	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	06/01/2026
Environmental Condition during the test			Clear Sky		

Bag Filter Performance Test

Sr. No.	Parameter	Unit	Design Parameter	Operating Condition	Remarks / Observation
14	Bag Filter Inlet Static Pressure	mmWC	–	108	Measured value reasonable
15	Differential Pressure across Bag Filter	mmWC	120	168	Within acceptable operating range (100–200 mmWC)
16	Bag Filter Inlet Temperature	°C	–	158	Within polyester bag limit (<180°C) – Safe
17	Bag Filter Outlet Temperature	°C	–	74.2	Indicates effective cooling after filtration
18	Bag Filter Inlet Dust Concentration	mg/Nm³	–	45.5	Moderate dust loading – Normal
19	Bag Filter Outlet Dust Concentration	mg/Nm³	50	27.9	Complies with CPCB/SPCB emission limits

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TEST REPORT

Report No.: AETRL/ BF-28012025/03			Date:		06/01/2026
Customer Name & Address	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Date of Sample Collection	:	28/01/2025	Sampling Type	:	Isokinetic
Date of Sample Received	:	30/12/2025	Sample ID	:	BF-28012025/03
Sampling Location	:	Power Plant (ESP)	Sample Description	:	ESP
Sample Collected / Submitted by	:	GECPL Team	Protocol used for Sampling	:	CPCB Guideline
Quantity / No. of Sample	:	1Nos.	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	06/01/2026
Environmental Condition during the test			Clear Sky		

ESP Performance Test

Sr. No.	Parameter	Unit	Design Parameter	Operating Condition	Remarks / Observation
1	ESP No of Field	Nos.	03	03	All field are operating
2	Field 1-TR set voltage	KVP	105	42	No spark observed and found ok
3	Field 2-TR set voltage	KVP	105	52	No spark observed and found ok
4	Field 3-TR set voltage	KVP	105	50	No spark observed and found ok
5	Field 1-TR set current	MA	500	58	Current setting OK
6	Field 2-TR set current	MA	700	107	Current setting OK
7	Field 3-TR set current	MA	500	155	Current setting OK
8	Rapping system	Nos.	47	47	Rapping system are operating
9	Rapping operational condition	Yes/No	-	47	All raping lift intensity found ok
10	ESP field spark rate	Nos.	0	0	Zero spark observed in ESP
11	Gas flow	m^3/hr	225000	221000	NA
12	Fan speed	RPM	980	740	NA
13	ESP inlet concentration	mg/Nm^3	50	46.5	NA
14	ESP Out let dust concentration	mg/Nm	50	29.2	Dust Emission is well within the Standard
15	Sulphur Dioxide (SO_2)	mg/Nm	600	182.3	Dust Emission is well within the Standard
16	Nitrogen Dioxide (NO_2)	mg/Nm	300	5.8	Dust Emission is well within the Standard
4	Oxygen	%	-		-

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Annexure XVIII: Water Sprinkling at the premises

PRACTIVES FOR FUGITIVE EMISSION CONTROL

WATER SPRINKLER & MIST WATER SYSTEM

Annexure XIX: Action Plan for Pollution Control System

ALOK FERRO ALLOYS LIMITED

PLOT NO. 458/1, 459, URLA INDUSTRIAL AREA, URLA RAIPUR CHHATTISGARH

ACTION PLAN FOR THE POLLUTION CONTROL SYSTEM TO ACHIEVE STACK EMISSIONS BELOW 25 Mg/Nm³

Improving the filtration capacity of a bag house (fabric filter) means gas flow handling without exceeding emission limits or causing high pressure drop. Below is some of the practical, plant-oriented checklist, commonly applied in Ferro-alloy units and other Furnaces.

1. Reduce Air-to-Cloth (A/C) Ratio.

Filtration capacity is directly linked to A/C ratio (Air to Cloth ratio).

Actions:

A. Increase number of bags
B. Increase bag length (e.g., 4.5 m → 6 m)
C. Add additional bag house compartment
D. Reduce excess air ingress (false air)

Typical thumb rules:
Pulse jet bag house: 1.0 – 1.5 m/min
Reverse air (RABH) : 0.5 – 1.0 m/min
Lower A/C ratio = higher effective capacity & lower emissions

2. Improve Bag Cleaning Efficiency

Poor cleaning causes choking → high DP → low capacity.

Optimize:
Pulse pressure (Compressed Air) : 5–7 kg/cm²
Pulse duration: 100–150 ms
Cleaning sequence (row-wise, online)
Cleaning based on ΔP control, not timer only

Check:
Choked or blinded bags
Solenoid valves & diaphragms
Compressed air Pressure /moisture/oil

3. Upgrade Filter Media (Very Effective)

Older fabric limits capacity.

Upgrade options:
Polyester → PTFE membrane bags
Antistatic bags (for high resistivity dust)
Higher GSM felt (550–600 GSM)

Benefits:
Higher filtration velocity
Lower pressure drop
Better fine dust capture (<30 mg/Nm³)

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

4. Improve Gas Distribution inside Beg house

Uneven flow reduces usable cloth area.

Actions:
Install / repair existing inlet baffles plates.
Improve diffuser plates
Seal hopper leakage
Eliminate short-circuiting zones

5. Control Gas Temperature & Moisture

Moisture causes bag blinding.

Maintain:
Gas temp 20–25°C above dew point
Avoid cold air ingress inside the bag House.
Insulate ducts, bag house & hopper

6. Reduce Dust Load at Baghouse Inlet

Lower inlet loading = higher capacity.

Methods:
Improve cyclone efficiency upstream
Reduce fuel fines
Optimize combustion / furnace operation

7. Maintain Hopper & Dust Discharge System

Dust accumulation increases re-entrainment.

Ensure:
Rotary valves / screw conveyors working
No hopper choking
Continuous ash evacuation

8. Improve Sealing & Reduce False Air

False air increases volume without filtration.

Check:
Expansion joints
Access doors
Tube sheet leakage
Damper seals

9. Operational & Monitoring Improvements

Continuous ΔP monitoring
Trend bag DP vs. time

IMPLEMENTATION FOR THE POLLUTION CONTROL SYSTEM TO ACHIEVE EMISSIONS BELOW 25 Mg/Nm³

To reduce bag house emissions from ~50 mg/Nm³ to ~25 mg/Nm³ without changing the air-to-cloth ratio, the most effective strategy usually lies in upgrading to more efficient filter media rather than just relying on conventional fabrics. With the same cloth area and airflow, the media type and surface characteristics strongly influence capture efficiency and hence emissions.

Why Media Choice Matters

Standard needle-felt or woven fabrics depend on dust cake buildup for filtration. Fine particles — especially in the sub-10 µm range — are harder to collect on these fabrics, and emissions tend to be higher unless the media is enhanced. Advanced media with finer pore structure or surface membranes can hold dust on the surface rather than in the depth of the fabric, improving efficiency and lowering emissions with the same air-to-cloth ratio.

Recommended Fabric Media for Lower Emissions (≈25 mg/Nm³)

1. PTFE Membrane Laminated Fabrics (Best Upgrade)

How they work: A micro porous PTFE membrane bonded to the base felt provides surface filtration — dust stays on the surface, not inside the felt.
Benefit: Significantly higher fine-particle capture efficiency; many installations report emissions well below 25 mg/Nm³ and can even achieve <10 mg/Nm³ is possible with proper maintenance.

Upgrading existing polyester bags to PTFE membrane versions often yields the largest emission drop without changing system airflow or cloth area.

Improved capture of smaller particles compared to standard polyester.

✔ Cleaning mechanism: Pulsed jet cleaning works best with PTFE membranes due to reduced dust penetration.

Maintenance is critical:

Even the best media won't perform if pulse cleaning, pressure drop, or bag integrity are poor. Ensuring proper pulse timing and periodic inspection improves actual capture efficiency and stabilizes emissions.

Summary – Best Choice for 50 → 25 mg/Nm³

BAG FILTER MODIFICATION IS ALSO DONE

Technical Specification of Bag Filters (I)

S. No.	Description	Specification Modified SAF NO. : 1 (1 X 4.5 MVA) A	Specification Modified SAF NO. : 1 (2 X 4.5 MVA) A
1.	Furnace No.	1	2 & 3
2.	Type of Pollution Control System	Pulse Jet Bag House Filter with Heat Exchanger	Pulse Jet Bag House Filter with Heat Exchanger
3.	Furnace Cooling System	Close Cooling system (Dry Cooler)	Close Cooling system (Dry Cooler)
4.	Filtering Media	PTFE Membrane Laminated Fabrics (Best Upgrade)	Polyester Needle felt non-woven filter bag
5.	No. Of Chamber	4	8
6.	No. Of Bag Per Chamber	168	144
7.	Total Nos. Of Filter	672	1152
8.	Dia Of Filter Bag	150 mm	150 mm
9.	Filter Bag Length	4.2 m	4.2 m
10.	Filtering Area Per Bag	1.98 m^2	1.98 m^2
13.	Total Filtering Area	1.98 x 504 m^2	1.98 x 1008 m^2
14.	Air To Cloth Ratio of Online Bags	1.13	1.12
15.	Fan Capacity	1 x 72500 N m3/h	2 x 72500 N m3/h
16.	Gas Volume Nm3/Hrs	67500	2 x 67500
17.	No. of ID Fans	1	2
18.	No. of FG Cooler Fans	3	4
19.	Transformer Cooling	Wet Cooling System	Wet Cooling System
20	Fuel Used	Electricity	Electricity

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Annexure XX: Monitoring report for silica/quartz sample

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

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0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/ TCLP-27122025/01			Date:		06/01/2026
ULR No.					
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date & Time	:	27/12/2025	Sampling Type	:	USEPA METHOD – 1311
Sample Receipt Date	:	30/12/2025	Sample ID	:	TCLP-27122025/01
Sampling Location	:	Silica quartz in dust At Ferro Area-1 near shell	Sample Description	:	Dust Particles
Sample Collected / Submitted by	:	Lab representative	Protocol used for monitoring	:	NA
Quantity / No. of Sample	:	250 gm	Analysis Started On	:	30/12/2025
Packing / Seal	:	Seal Pack	Analysis Completed On	:	06/01/2025
Environmental Condition during the test			Clear sky		

TEST REPORT OF

SR.NO.	PARAMETER	UNIT	METHOD OF TEST	As per Factory Act	RESULT
1	Particles of Silica quartz in Ferro Dust	mg/m3	USEPA METHOD – 1311	10	1.54

Authorized Signatory

****End of the Report****

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Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1ZS

Approved: by Occupational Health &Safety Management (ISO45001:2018)
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Registered Office: 63/1, Kailash Vihar, Near Income Tax Office, City Center-II, Gwalior-474 011, M.P., India
0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/ TCLP-27122025/03			Date:		06/01/2026
ULR No.					
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date & Time	:	27/12/2025	Sampling Type	:	USEPA METHOD – 1311
Sample Receipt Date	:	30/12/2025	Sample ID	:	TCLP-27122025/03
Sampling Location	:	Silica quartz in dust At Ferro Area-2 near shell	Sample Description	:	Dust Particles
Sample Collected / Submitted by	:	Lab representative	Protocol used for monitoring	:	NA
Quantity / No. of Sample	:	250 gm	Analysis Started On	:	30/12/2025
Packing / Seal	:	Seal Pack	Analysis Completed On	:	06/01/2025
Environmental Condition during the test			Clear sky		

TEST REPORT OF

SR.NO.	PARAMETER	UNIT	METHOD OF TEST	As per Factory Act	RESULT
1	Particles of Silica quartz in Ferro Dust	mg/m3	USEPA METHOD – 1311	10	1.60

Authorized Signatory

****End of the Report****

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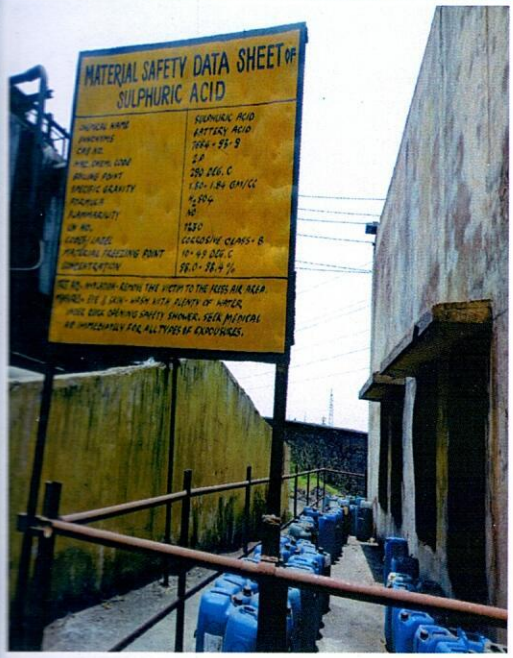
Annexure XXI: Coal Dust Study Report

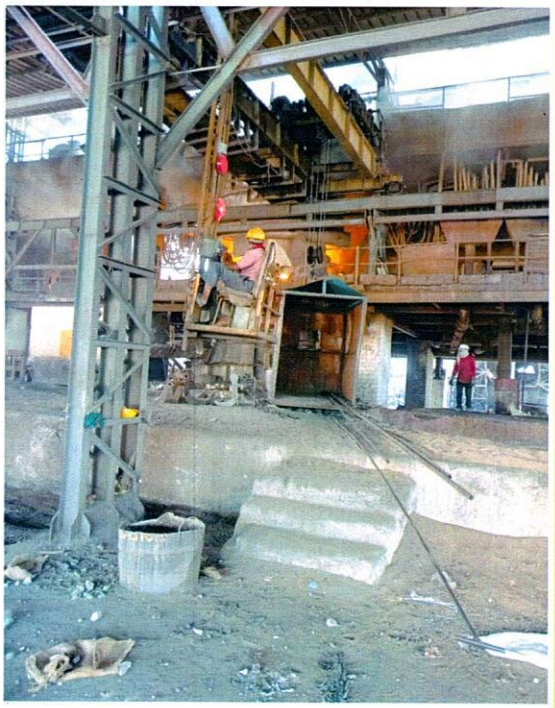
3rd February 2024

INDUSTRIAL HYGIENE SURVEY

at

ALOK FERRO ALLOYS LTD.





Survey conducted
by

Arvind Industrial Hygiene
Consultancy
Raipur

Ref. No- Arvind Ind. Hygiene/2024/35 Date :22 -02-2024

To,
HOD ,Safety Department
Hira Ferro Alloys Ltd.
Urla Industrial Complex
Raipur - 492003

Sub – Industrial Hygiene Survey Alok Ferro Alloy Ltd.

Ref - P.O.NO. Ferro/23-24/SO/-0174 dated 6.1.2024

Dear Sir,

With reference to the above an extensive Industrial hygiene survey had been conducted at different locations of the plant on 3.2.2024 .The survey work was co-ordinated by Mr.Shiv Raj Verma ,Safety Officer from Safety department of HFA Unit. Please find a report of the survey for your information and necessary action.

Arvind Industrial Hygiene Consultancy
Director

Dr.A.K.Verma, M.Sc.Ph.D.
Director & Competent Person Under CG Govt.
Arvind Industrial Hygiene Consultancy ,Raipur (C.G.)

Arvind Industrial Hygiene Consultancy
Raipur

Introduction - Alok ferroalloy(AFA) is one of the leading ferroalloy production unit of Chhattisgarh. The plant is working under the flagship of Hira group of industries having other units of power and steel also. The plant is certified under ISO 14001 and ISO - 45001 management system. The present hygiene survey was conducted on 3rd Feb.2024 at various section of plant area. Monitoring of respirable dust and fumes is mandatory to comply the section 41F of the factory act ,which gives the guide line to keep these contaminants with in permissible limit(TLV) in the working environment. The industrial hygiene survey was conducted at the various identified locations of the plant. These survey provides input for the assessment of occupational health risk among the workers, which may help subsequently for taking control measures in the work place. The data collected is useful to correlate the health of employees with their occupation , improvement of working environment and work to become conducive to safety and health . In the plant the shop floor layout including housekeeping, safety signage's displayed at various locations, were appreciable. The spacious and open landscaping inside the plant covering with greenery were also very much appreciable from environment point of view.

Objective - The objective of this study was to monitor and to assess the level of dust, noise, Heat stress in the furnace & CPP area and to suggest remedial measures to make the environment congenial and conducive.

Technical information :

(a) **Threshold limit value** – TLVs refers to airborne concentration of substances for 8 hrs. workdays to which nearby all workers may be repeatedly exposed day after day without having any adverse health effect.

(b) **TWA** – The time weighted average concentration permit excursions above the limits, provided they are compensated by equivalent excursion below the limit during the work day.

(c) **Decibel db -** A unit used to express sound intensity. Minimum difference in loudness that is usually perceptible. The general relationship is L = 10 q/qo(dB) One decibel is one tenth of a bel and it is the preferred unit for noise measurement.

(d) **Sound pressure level Spl** – The level in decibel of a sound is 20 times the logarithm to the base 10 of the ratio of the pressure of this sound to the reference sound pressure .The unit gives idea about the effect of noise on ear drum.

(e)**Equivalent noise exposure Leq** – Equivalent exposure for extended period of time ,provided there is no change in the noise because of the interference. It gives the assessment of noise dose as per ISO -1999 ,for hearing conservation purpose. Useful for calculating TLV/TWA for noise dose of exposed employees.

(f)**Sound emission level SEL** – The unit gives the assessment of noise intensity generating from the source or machine. The parameter is useful for adopting engineering control measures in the work place.

(g)**Personal monitoring** – Sampling of employees exposed to various pollutants by fixing sampler in the breathing zone .

(h)**Exposure Time** – The length of individual employees exposure may be limited as administrative control. There are shorter exposure time for higher sound levels. Permitted noise exposure time or PT can be calculated for the measured sound level and it may be used as an administrative control measures to minimize the exposure level. PT can be calculated from the following formula PT $= 8/2^{(L-90)/5}$

Different physical & chemical hazards were monitored by using area sampling and personal sampling techniques. The identification of the exposed employees were done on the basis of data collection, its analysis and comparison with threshold limit values of respective hazards.

Respirable Dust - The respirable dust concentration was monitored with the help of Personal air sampler (APEX –II Casella London Make).The instrument was attached in the working locations of the plant. Air containing respirable dust was drawn through the sampling head(Cyclone 225-8-01)at the rate of 1.9 ltr./mts. Suction is provided by a pump driven by a D.C. motor from a rechargeable NiMH battery which lasts up to 10 hrs. The breathing zone samples were collected during the normal working hours. of the individual. The instrument was removed after 8 hrs. and dust concentration was calculated on the basis of weight difference of the filter paper(PVC Membrane filter 37 mm dia). The internationally approved NIOSH method 0600 was used to evaluate the dust concentration in mg/m^3 of air.

Noise - Noise level measurement was done with the help of sound level meter type 62 X ,Casella London make. Parameters like Spl, Leq and SEL were recorded near the different machines following the OSHA guidelines for noise sampling (1 mtr. Away from the machine and at the place where worker is sitting during the duty hrs.).Area of maximum noise and safe zone were identified using noise mapping technique.

Personal exposure to noise was assessed by noise dosimeter type 4428.The noise dosimeter was attached to the workers, working in noisy area and then it was removed to assess their actual exposure. The percentage exposure was further converted into corresponding decibel by using conversion table.

OBSERVATIONS :

Table 1
Respirable Dust , Work zone Sampling

S.N	Name & ID	Designation	Location	Dust Mg/m^3	TLV Mg/m^3
1.	Rupeshwar Prasad	Fork lift Operator	Furnace Floor	1.75	2
2.	Rohit manhare	Operator	Furnace floor	1.12	2
3.	Vaibhav baghel	Engineer	Power plant	0.87	2

Table -2
Noise Personal Sampling

S.N	Name	Designation	Location	Noise Leq dB	TLV dB
1.	Vaibhav Baghel	Engineer	Power plant TG area	84	85
2.	Girish Tiwari	Operator	Furnace control	82	85
3.	Purch Ram	Cont.worker	Furnace fkloor	80	85

Table -3
Noise level survey (Area sampling)

S.N	Location	Noise dB(A) SpL	Noise dB(A) Leq	Noise dB(A) SEL	TLV dB(A)
1.	Elec Arc Fur.floor 3.5 MVA	83	81	87	85
2.	Inside furnace con.room	76	74	80	85
3.	Compressor room	88	86	91	85
4.	Turbine hall CPP 8.5 MW	89	87	93	85
5.	ID fan area, Pollution control	84	82	88	85

Table - 4
Heat Stress Measurement (Time 3.30 PM)

S.N	Location	D	W	Radiant Heat ^{0}C	Mean WBGT	% Excess	TLV
1.	Furnace floor 3.5 MVA	37	26	41	30.5	3.7	29.4
2.	CPP Boiler area	35	24	38	28.2	Nil	29.4
3.	Turbine hall	33	24	37	27.9	Nil	29.4

RH – 67 % , Air velocity 1.1 Mtr ./sec. ,TLV 29.4 on 50% work Rest schedule.

Table - 5
Ilumination level (5.10 PM)

S.N	Location	Lux	Requirement lux IS-6665 1972
1.	Inside furnace control room	180	100-150
2.	Inside Power plant main control room(CCR)	210	100-150
3.	All along TG Hall	110- 140	100-150

Table - 6
Gas & Chemicals Area Sampling

S.N0	Location	Contaminant	Conc.PPM	TLVPPM
1.	DM Plant QWC Lab	HCl fume Ammonia	Nil Nil	5 PPM 25 PPM
2.	Chemical storage Area	HCl fume Ammonia H_2SO_4 Hydrazine	Nil Nil Nil Nil	5 PPM 25 PPM 1 Mg/m^3 0.1 PPM

Table - 7
Analysis of Questionnaire & Health Symptoms
(Subjective Response n = 12)

S.NO.	Symptoms	% Response Yes	% Response No
1.	Environmental Factors Heat, Noise, Fumes at the work place	05	95
2	Ventilation system Cross ventilation ,good	95	05
3.	Use of Dust mask	100	nil
4.	Facility of drinking water ,Toilet ,Rest Place ,F Aid box	100	nil
5.	**Health Symptoms** (a) Headache (a) Giddiness (c) Fatigue (d) Muscles cramp (e)Uncomfortable work place (f) Leave because of workplace Health hazards	 00 nil 05 Nil 05 nil	 100 100 95 100 95 100

Results & Discussion –The extensive industrial hygiene survey was conducted on 3rd Feb.2024 ,in the different locations of plant area. The plant having all the pollution control system working properly on the place. The process of various section is being controlled from centralized control room Worker's exposure were found to be negligible except in the coal yard .

Respirable Dust – Respirable dust at personal level was measured at 3 working locations & all samples resulted within TLV norms on 8 hrs. basis.(table 1,)

Noise – Personal noise exposure assessment was done for 3 employees of plant and were found to be within TLV norms(Table 2).Noise area sampling done at 5 locations ,2 samples of compressor room and TG hall have exceeded the norms. The persons working there were found using ear plugs and exposure was not continuous for 8 hrs. They require to visit time to time in the compressor room . (table 2 & 3).

Heat Stress – Heat stress was measured in terms of wet bulb globe temperature (W.B.G.T.). Mean W.B.G.T. and radiant heat is reported in table No.4. Out of 3 locations, mean WBGT was found exceeding at 1 location of 3.5 MVA furnace floor. Heat stress was observed at furnace floor because of the high radiant heat during alloy addition activity . Personal exposure was not observed at the furnace floor, but the person doing job was found intermittently exposed to heat while charging the material and tapping out process. At rest of the locations heat stress was observed within norms .TLV criteria considered as 50% work /Rest schedule. All the jobs relating to operation being performed through control cabins. The relative humidity was observed 67 % and air velocity was also measured varying from 1.1 mtr/sec. at various locations .Cross ventilation on furnace floor was observed good . (table 4).

Illumination – Illumination survey was conducted at 7 locations light intensity at all the locations were found to be adequate at all the locations . (Table 5).

Gas & Chemicals – Gas & chemical concentration were monitored at 2 different locations of DM plant and found to be within norms at all the locations. MSDS was found properly displayed in the work place and chemical storage area.(table 6)

Questionnaire Survey: - Questinnaire survey was conducted for 12 employees of the plant taking feedback about PPEs and other safety & health issues. Most of them have given favourable opinion .The data is shown in table 7.

Recommendations – On the basis of the above extensive survey of the works area, following recommendations have been suggested :

1. Use of half face tight HEPA mask in Coal handling plant of power plant.

2 .CPP control room operators to use ear plugs while going out in turbine hall. Safety signage's indicating high noise zone may be fixed outside compressor room.

Conclusion - The housekeeping of entire plant was observed very good. Separate wash room for male /female workers & rest room modified recently is highly appreciable .

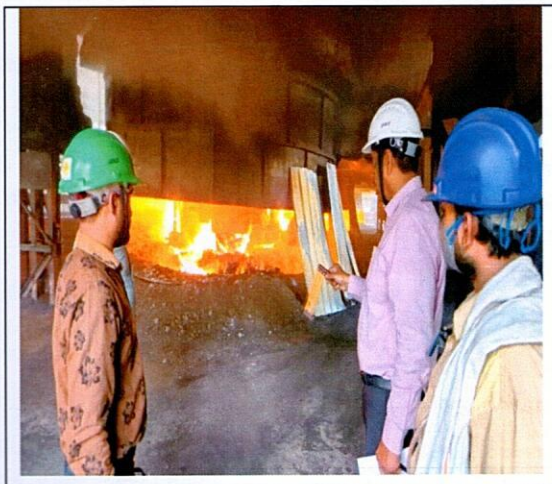
Arvind Industrial Hygiene Consultancy

Director

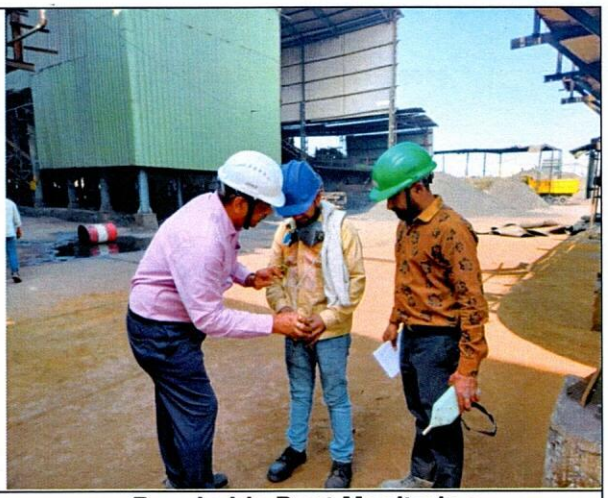
Dr.A.K.Verma, M.Sc.Ph.D.
Director & Competent Person Under CG Govt.
Arvind Industrial Hygiene Consultancy ,Raipur (C.G.)

Arvind Industrial Hygiene Consultancy
Raipur

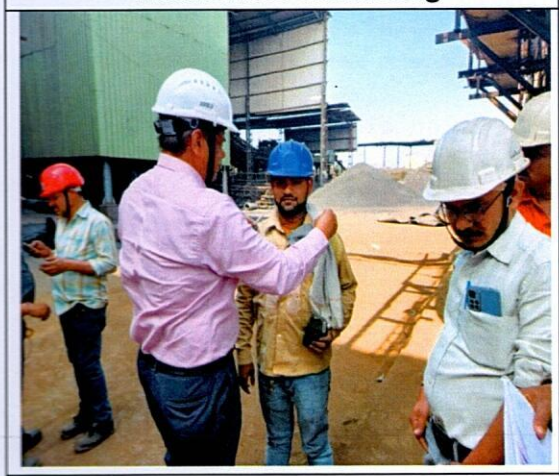
SURVEY PHOTOGRAPH



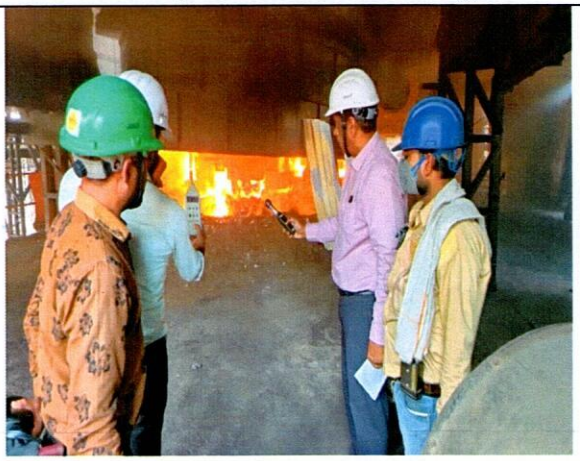
Heat Stress Monitoring



Respirable Dust Monitoring



Respirable Dust Monitoring



Noise, Heat Stress Monitoring

Arvind Industrial Hygiene Consultancy
Raipur
(C.G.)
C-19, Tagore Nagar

DIRECTORATE OF INDUSTRIAL HEALTH & SAFETY
CHHATTISGARH, RAIPUR

2nd Floor, 3rd Block, Indrawati Bhawan, Atal Nagar Raipur

No. DIHS/C.G./RPR/C.C.//4410037636A **Raipur,Dated 05/01/2024**

CERTIFICATE OF COMPETENCY

This is to certify that **Arvind Industrial Hygiene Consultancy, C-19, Tagore Nagar, Raipur (C.G)** to be a competent person for the purpose of carrying out tests, examinations, inspections and certification for such precautions against dangerous fumes, ventilation system as required under various schedule framed under sec-87, used in factories located in the state of Chhattisgarh used in factories for the **person named as SAKET KUMAR SHRIVASTAVA Sec-36 & 87** and the Rules made there under of Factories Rules 1962 for the period from **05/01/2024** To **04/01/2025**. This certificate is issued subject to the conditions stipulated here under :-

CONDITIONS

1. The examinations and inspections shall be carried out in accordance with the provisions of the Act and the Rules made there under.
2. Tests, examination and inspections shall be carried out under direct supervision of the competent person.
3. Copies of examination certificate issued by you after due examination are to be marked to the Inspector of Factories concerned in all cases where defects are noticed and repairs are ordered or any alterations are imposed on its use.
4. The Chief Inspector of Factories, Chhattisgarh State, Raipur reserves the right to revoke, renew or amend this order at any time after giving opportunity of hearing.
5. All the testing facilities at the disposal of the competent person/institution/Association shall be maintained in good working order.
6. Any change in testing facilities (either addition or deletion) shall be intimated to the Chief Inspector of Factories, C.G. immediately.

BHIM SINGH
Digitally signed by BHIM SINGH
Date: 2024.01.05 11:08:29 +05'30'

Chief Inspector of Factories
Government of Chhattisgarh Raipur

No. DIHS/C.G./RPR/C.C.//4410037636A **Raipur,Dated 05/01/2024**

Copy forwarded to :-

1. Shri **Arvind Industrial Hygiene Consultancy, C-19, Tagore Nagar, Raipur (C.G)** in reference to application dated 13/12/2023
2. Dy.Director, Industrial Health & Safety, H.Q/ D.D.Raipur/ D.D.Hygiene Lab/ Bilaspur/ Durg/ Raigarh/ Korba/ Rajnandgaon, Assistant Director , Industrial Health & Safety, Janjgir -Champa, Balodabazar for Information.

BHIM SINGH
Digitally signed by BHIM SINGH
Date: 2024.01.05 11:08:59 +05'30'

Chief Inspector of Factories
Government of Chhattisgarh Raipur

..... END OF REPORT .....

Annexure XXII: Coal Dust Monitoring Report

HIRA

GODAWARI POWER & ISPAT

428/2 Phase-1 Industrial Area Siltara Raipur - 493111 Chhattisgarh India

FUGITIVE EMISSION MONITORING REPORT

M/s ALOK FERRO ALLOYS LIMITED

FOR THE MONTH OF **OCT-2025**

I. SAMPLING DETAILS :

Date of Sampling	04.10.2025
Date of Analysis	04.10.2025
Monitored by	Mr. Feroz Khan & Prakash Dewangan
Analyzed by	Mr. Ugendra Verma

II. WORK ZONE AIR MONITORING RESULTS

Parameter	Prescribed Limit As Per CECB	Location (Power Plant Coal Handling Area)		
		Near Ground Hopper	*Near Screen House*	*Near DCF(Drag Chain Feeder)*
SPM	2000.00 µg/m^3	1150	1310	1022

CHEMIST

AGM

Head of the Department
Environment Management System

Annexure XXIII: Photographs of installed flowmeter

ALOK FERRO ALLOYS LIMITED
FLOW METER PHOTOGRAPHS

Annexure XXIV: Ground Water Monitoring Report

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1ZS

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

Registered Office: 63/1, Kailash Vihar, Near Income Tax Office, City Center-II, Gwalior-474 011, M.P., India
0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/ GW-27122025/01			Date:		07/01/2026
Customer Name & Address	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Date of Sample Collection	:	27/12/2025	Sampling Type		Grab
Date of Sample Received	:	30/12/2025	Sample ID	:	GW-2722025/01
Sampling Location	:	Borewell- 01	Sample Description	:	Ground Water
Sample Collected / Submitted by	:	Lab representative	Protocol used for Sampling	:	APHA 24th Edition
Quantity / No. of Sample	:	2Liter/1Nos.	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	05/01/2026
Type of Container	:	Plastic Container	Environmental Condition	:	Clear sky

Water Analysis Results

S. No.	Name of Test	Method of Test	Test Result	Units	Limits as per IS:2296
1	pH	IS:3025 (Part-11)-2022	7.49	-	8.5
2	Taste	IS:3025 (Part-8)- 2023	Agreeable	-	-
3	Odour	IS:3025 (Part-5)- 2018	Odourless	-	Odour/ Odourless
4	Colour	IS:3025 (Part-4)- 2021	BLQ (< 1.0)	Hazen	10.0 (Max.)
5	Turbidity	IS:3025 (Part-10)- 2023	BLQ (< 1.0)	NTU	1.0 (Max.)
6	Total Dissolved Solids	IS:3025 (Part-16)- 2023	772	mg/L	500.0 (Max.)
7	Calcium (as Ca)	IS:3025 (Part-40)-2024	118	mg/L	80.10 (Max.)
8	Free Residual Chlorine	IS 3025 (Part-26)-2021	BLQ (< 0.08)	mg/L	-
9	Chlorides (as Cl-)	IS:3025 (Part-32)-2019	16.0	mg/L	250.0 (Max.)
10	Magnesium (as Mg)	IS:3025 (Part-46)-2023	17.9	mg/L	24.28 (Max.)
11	Total Alkalinity	IS:3025 (Part-23)-2023	248	mg/L	-
12	Total Hardness (as CaCO3)	IS:3025 (Part-21)-2023	366	mg/L	300.0 (Max.)
13	Sulphate (as SO4)	IS:3025 (Part-24/Sec-1) 2022	85.8	mg/L	400.0 (Max.)
14	E. Coliform	IS : 15185:2016	Absent	Per 100 ml	Shall not be detectable in any 100 ml sample
15	Total Coliform	IS : 15185:2016	Absent	Per 100 ml	Shall not be detectable in any 100 ml sample

Remarks BLW: Below Limit of Qualification

Authorized Signatory

****End of the Report****

Note:

1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15 days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15days.
4. The above Results are related to the tested Sample Only.

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1ZS

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

Registered Office: 63/1, Kailash Vihar, Near Income Tax Office, City Center-II, Gwalior-474 011, M.P., India
0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/ GW-27122025/02			Date:		07/01/2026
Customer Name & Address	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Date of Sample Collection	:	27/12/2025	Sampling Type		Grab
Date of Sample Received	:	30/12/2025	Sample ID	:	GW-2722025/02
Sampling Location	:	Borewell- 02	Sample Description	:	Ground Water
Sample Collected / Submitted by	:	Lab representative	Protocol used for Sampling	:	APHA 24th Edition
Quantity / No. of Sample	:	2Liter/1Nos.	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	05/01/2026
Type of Container	:	Plastic Container	Environmental Condition	:	Clear sky

Water Analysis Results

S. No.	Name of Test	Method of Test	Test Result	Units	Limits as per IS:2296
Chemical Testing					
Ground Water					
1	pH	IS:3025 (Part-11)-2022	7.52	-	8.5
2	Taste	IS:3025 (Part-8)- 2023	Agreeable	-	-
3	Odour	IS:3025 (Part-5)- 2018	Odourless	-	Odour/ Odourless
4	Colour	IS:3025 (Part-4)- 2021	BLQ (< 1.0)	Hazen	10.0 (Max.)
5	Turbidity	IS:3025 (Part-10)- 2023	BLQ (< 1.0)	NTU	1.0 (Max.)
6	Total Dissolved Solids	IS:3025 (Part-16)- 2023	782	mg/L	500.0 (Max.)
7	Calcium (as Ca)	IS:3025 (Part-40)-2024	122	mg/L	80.10 (Max.)
8	Free Residual Chlorine	IS 3025 (Part-26)-2021	BLQ (< 0.08)	mg/L	-
9	Chlorides (as Cl-)	IS:3025 (Part-32)-2019	18.0	mg/L	250.0 (Max.)
10	Magnesium (as Mg)	IS:3025 (Part-46)-2023	18.1	mg/L	24.28 (Max.)
11	Total Alkalinity	IS:3025 (Part-23)-2023	251	mg/L	-
12	Total Hardness (as CaCO3)	IS:3025 (Part-21)-2023	379	mg/L	300.0 (Max.)
13	Sulphate (as SO4)	IS:3025 (Part-24/Sec-1) 2022	86.1	mg/L	400.0 (Max.)
14	E. Coliform	IS : 15185:2016	Absent	Per 100 ml	Shall not detectable in any 100 ml sample
15	Total Coliform	IS : 15185:2016	Absent	Per 100 ml	Shall not detectable in any 100 ml sample

Remarks BLW : Below Limit of Qualification

Authorized Signatory

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Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1ZS

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

Registered Office: 63/1, Kailash Vihar, Near Income Tax Office, City Center-II, Gwalior-474 011, M.P., India
0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/ GW-27122025/03			Date:		07/01/2026
Customer Name & Address	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Date of Sample Collection	:	27/12/2025	Sampling Type		Grab
Date of Sample Received	:	30/12/2025	Sample ID	:	GW-2722025/03
Sampling Location	:	Borewell- 03	Sample Description	:	Ground Water
Sample Collected / Submitted by	:	Lab representative	Protocol used for Sampling	:	APHA 24th Edition
Quantity / No. of Sample	:	2Liter/1Nos.	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	05/01/2026
Type of Container	:	Plastic Container	Environmental Condition	:	Clear sky

Water Analysis Results

S. No.	Name of Test	Method of Test	Test Result	Units	Limits as per IS:2296
Chemical Testing					
Ground Water					
1	pH	IS:3025 (Part-11)-2022	7.42	-	8.5
2	Taste	IS:3025 (Part-8)- 2023	Agreeable	-	-
3	Odour	IS:3025 (Part-5)- 2018	Odourless	-	Odour/ Odourless
4	Colour	IS:3025 (Part-4)- 2021	BLQ (< 1.0)	Hazen	10.0 (Max.)
5	Turbidity	IS:3025 (Part-10)- 2023	BLQ (< 1.0)	NTU	1.0 (Max.)
6	Total Dissolved Solids	IS:3025 (Part-16)- 2023	765	mg/L	500.0 (Max.)
7	Calcium (as Ca)	IS:3025 (Part-40)-2024	116	mg/L	80.10 (Max.)
8	Free Residual Chlorine	IS 3025 (Part-26)-2021	BLQ (< 0.08)	mg/L	-
9	Chlorides (as Cl-)	IS:3025 (Part-32)-2019	16	mg/L	250.0 (Max.)
10	Magnesium (as Mg)	IS:3025 (Part-46)-2023	17.5	mg/L	24.28 (Max.)
11	Total Alkalinity	IS:3025 (Part-23)-2023	245	mg/L	-
12	Total Hardness (as CaCO3)	IS:3025 (Part-21)-2023	361.7	mg/L	300.0 (Max.)
13	Sulphate (as SO4)	IS:3025 (Part-24/Sec-1) 2022	82.5	mg/L	400.0 (Max.)
14	E. Coliform	IS : 15185:2016	Absent	Per 100 ml	Shall not detectable in any 100 ml sample
15	Total Coliform	IS : 15185:2016	Absent	Per 100 ml	Shall not detectable in any 100 ml sample

Remarks BLW : Below Limit of Qualification

Authorized Signatory

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Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

Registered Office: 63/1, Kailash Vihar, Near Income Tax Office, City Center-II, Gwalior-474 011, M.P., India
0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/ GW-27122025/04			Date:		07/01/2026
Customer Name & Address	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Date of Sample Collection	:	27/12/2025	Sampling Type		Grab
Date of Sample Received	:	30/12/2025	Sample ID	:	GW-2722025/04
Sampling Location	:	Borewell- 04	Sample Description	:	Ground Water
Sample Collected / Submitted by	:	Lab representative	Protocol used for Sampling	:	APHA 24th Edition
Quantity / No. of Sample	:	2Liter/1Nos.	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	05/01/2026
Type of Container	:	Plastic Container	Environmental Condition	:	Clear sky

Water Analysis Results

S. No.	Name of Test	Method of Test	Test Result	Units	Limits as per IS:2296
Chemical Testing					
Ground Water					
1	pH	IS:3025 (Part-11)-2022	7.46	-	8.5
2	Taste	IS:3025 (Part-8)- 2023	Agreeable	-	-
3	Odour	IS:3025 (Part-5)- 2018	Odourless	-	Odour/ Odourless
4	Colour	IS:3025 (Part-4)- 2021	BLQ (< 1.0)	Hazen	10.0 (Max.)
5	Turbidity	IS:3025 (Part-10)- 2023	BLQ (< 1.0)	NTU	1.0 (Max.)
6	Total Dissolved Solids	IS:3025 (Part-16)- 2023	780	mg/L	500.0 (Max.)
7	Calcium (as Ca)	IS:3025 (Part-40)-2024	120	mg/L	80.10 (Max.)
8	Free Residual Chlorine	IS 3025 (Part-26)-2021	BLQ (< 0.08)	mg/L	-
9	Chlorides (as Cl-)	IS:3025 (Part-32)-2019	18	mg/L	250.0 (Max.)
10	Magnesium (as Mg)	IS:3025 (Part-46)-2023	17.9	mg/L	24.28 (Max.)
11	Total Alkalinity	IS:3025 (Part-23)-2023	249	mg/L	-
12	Total Hardness (as CaCO3)	IS:3025 (Part-21)-2023	373.3	mg/L	300.0 (Max.)
13	Sulphate (as SO4)	IS:3025 (Part-24/Sec-1) 2022	84.6	mg/L	400.0 (Max.)
14	E. Coliform	IS : 15185:2016	Absent	Per 100 ml	Shall not detectable in any 100 ml sample
15	Total Coliform	IS : 15185:2016	Absent	Per 100 ml	Shall not detectable in any 100 ml sample

Remarks BLW : Below Limit of Qualification

Authorized Signatory

****End of the Report****

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4. The above Results are related to the tested Sample Only.

Annexure XXV: Rainwater Harvesting Certificate

PATEL RAIN WATER HARVESTING

BHUPENDRA KUMAR (GEO –HYDROLOGIST) M.SC IN GEOLOGY

Reg: GEOHYDROLOGIST IN RAIPUR MUNICIPAL CORPORATION & INDIAN ASSOCIATION OF HYDROLOGIST (ROODKI)

ADD: - GANESH CHOWK WARD NO – 03, PATEL PARA KUMHARI, DIST. DURG (C.G.) *MOB – 9827859411, 8839136051*

CERTIFICATE NO – BK/RWH/53/2024 **DATED –21/08/2024**

COMPLETION CERTIFICATE OF RAIN WATER HARVESTING

OF **ALOK FERRO ALLOYS LIMITED**, SITUATED AT PLOT NO. 458/1 & 459, URLA INDUSTRIAL AREA,RAIPUR (C.G.)

As per the discussion and visual inspection of the plant, 2 Nos. Rain Water Harvesting and 2 Nos. Of Soak pit have been constructed inside the plant premises. In which Approx. 13438 KL/year water is being recharge into the ground water through injection well through horizontal connected pipe with "V" wire filter Unit.

All the Injection well and Recharge well have been Constructed by ***M/s S A Construction*** under the Guidance & designed by ***Hydrologist Mr.Bhupendra Kumar*** and Co-ordination with Civil Engineer - ***Er. Virendra Verma***. All the Recharge and Injection Well are successfully Operational.

CALCULATION OF TOTAL QUANTUM OF AVAILABLE RUNOFF (CUM/Y)

ESTIMATION OF QUANTUM OF RUNOFF AVAILABLE THROUGH RAIN WATER HARVESTING (WITHIN PREMISES) SHEET

S.No.	Particulars	Area (Sqm) (To be filled)	Rain fall (m) (To be filled)	Runoff Coefficient*	Quantum of Run off available (Cum/Year)
	1	2	3	4	5 (2*3*4)
1	Roof Top of building/Shed /	28766.34	0.9	0.85	22006.25
2	Road/Paved area	9725.40	0.9	0.65	5689.36
3	Open Land	27036.51	0.9	0.20	4866.57
4	Green Belt	7641.75	0.9	0.15	1031.64
5	Total (sqm)	73170	Total Quantum of available runoff (cum/y)		33,594

* Ref: Manual of Artificial Recharge of Ground Water, (CGWB,2007)

[HYDROLOGIST]

BHUPENDRA KUMAR
Reg. Geo-Hydrologist &
Rain Water Harvesting Consultant
Licence No.: 900/2017-18
Membar of IHA Roorkee, LM 1938

OUR SERVICES

All kind of Rain Water Harvesting, Ground Water Searching by Geophysical Methods, CGWB Noc, Geological Report, bore well logging, piziometer installation, Flow Meter Installation, Water Purify Systems, Water Treatment Services, Mining Plan for Minor/ Major Minerals, Environmental Plan Consultant.

PATEL RAIN WATER HARVESTING

BHUPENDRA KUMAR (GEO –HYDROLOGIST) M.SC IN GEOLOGY

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In Rainy season, out of total Quantum of available Runoff (Cum/Year), 60 % (20156.4 cum) Of water is lost due to evaporation/run off and soil absorption and minimum of 13437.60 Cum/Year of assumed Quality of water can be recharged into the ground water source.

Proposed

1 NoRain Water Harvesting Pit has been proposed for our EC Expansion Proposal.

Drawing of Constructed and Proposed Injection Well and Recharge Well Enclosed.

Following precautionary measures should be taken while harvesting rainwater:-

- Roof or terraces uses for harvesting should be clean, free from dust, algal plants etc.
- Do not store chemicals, rusting iron, manure or detergent on the roof.
- Filter media should be cleaned before every monsoon season.
- This system Work in Rainy Season only (July – Nov.)
- Save Water – Save Life.

[HYDROLOGIST]

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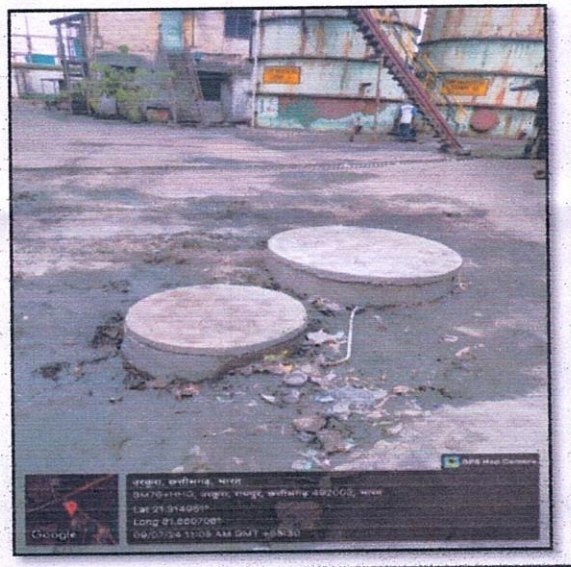
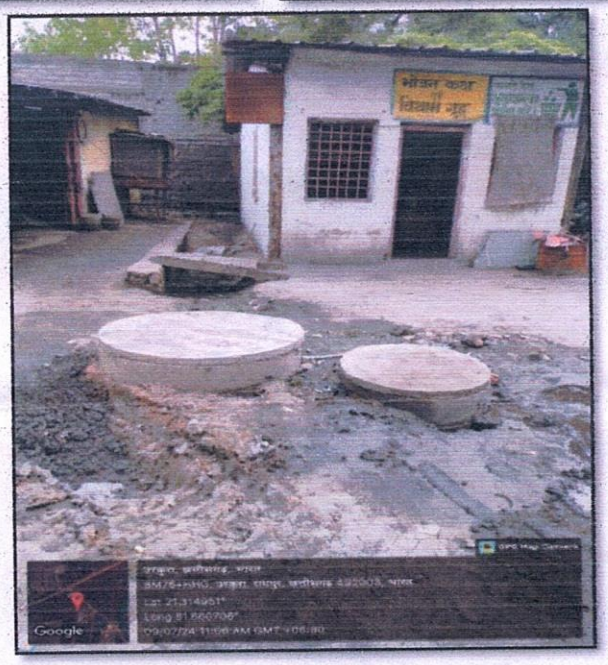
ADD: - GANESH CHOWK WARD NO – 03, PATEL PARA KUMHARI, DIST. DURG (C.G.) *MOB – 9827859411, 8839136051*

SITE PHOTOGRAPHS:- *NEAR DM PLANT.*





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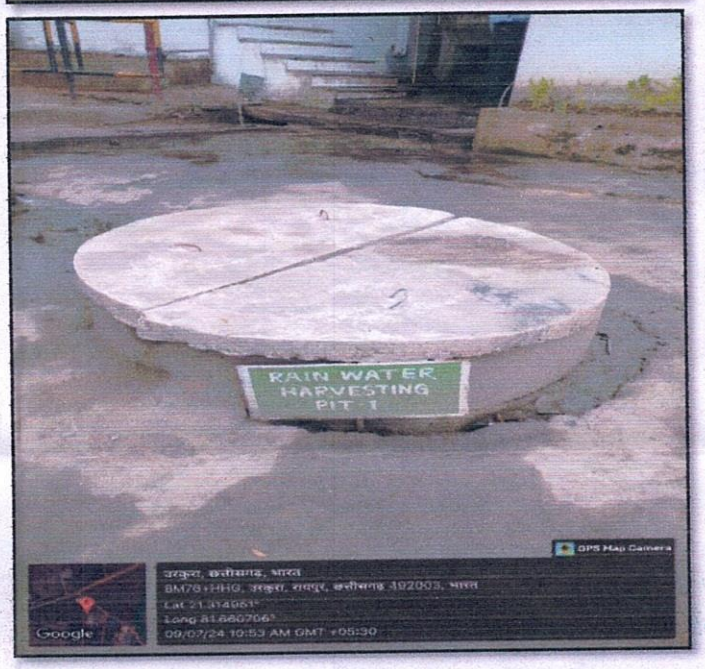
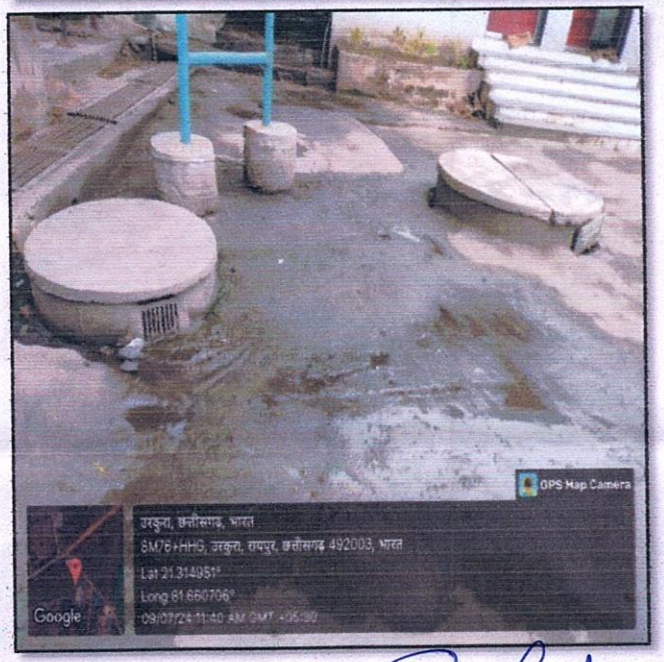
SITE PHOTOGRAPHS:- *NEAR MAIN GATE.*





[HYDROLOGIST]
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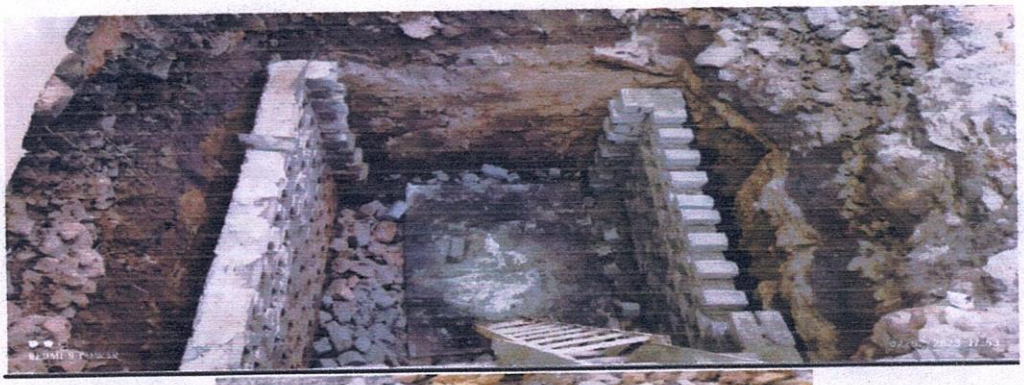
ADD: - GANESH CHOWK WARD NO – 03, PATEL PARA KUMHARI, DIST. DURG (C.G.) *MOB – 9827859411, 8839136051*

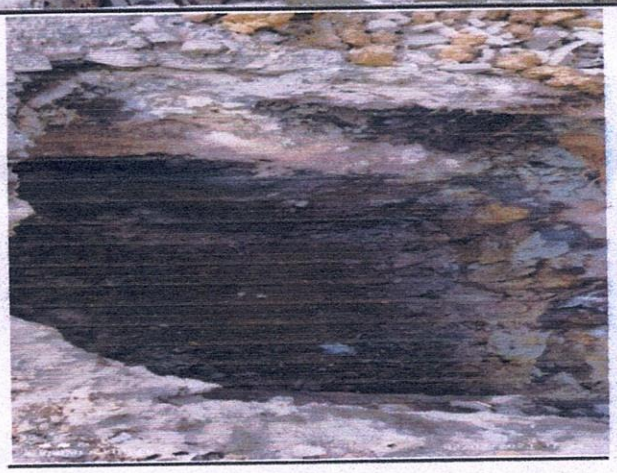
SOAK PIT :

Soak Pit has been constructed at Near DM Plant Area having Size is 1.5 m length x 1.2 m Breadth x 1.5 m Height from that Recharge system they have saved Approx 300 cub meter Rain Water per Annaum. Now the System is Working Properly.

Necessary Precautions:

- Weekly clean the Roof top & drainage system
- The System is designed for purely surface run off water, To ensure to recharge water is purely Rain Water/Fresh Water only & Contaminated Free.
- Save Water – Save Life.





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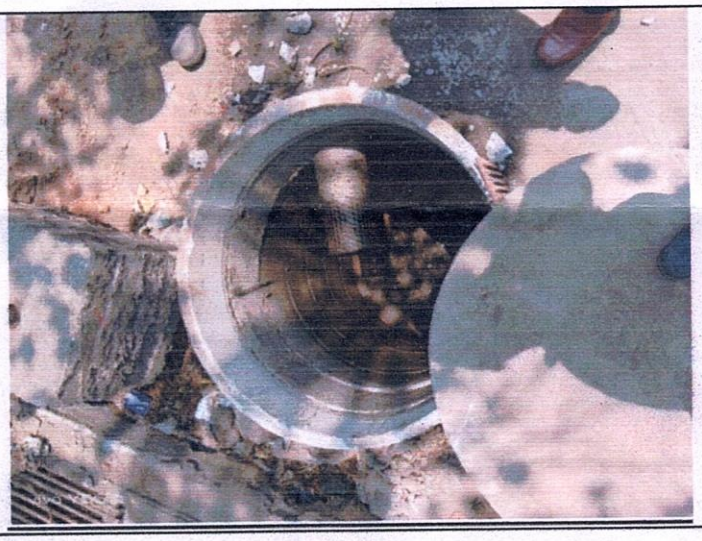
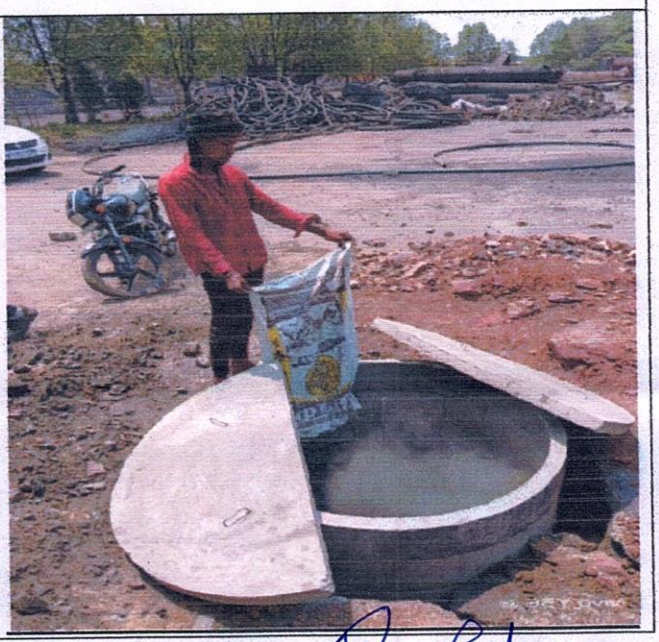
SITE PHOTOGRAPHS:- NEAR OLD SOLAR AREA.





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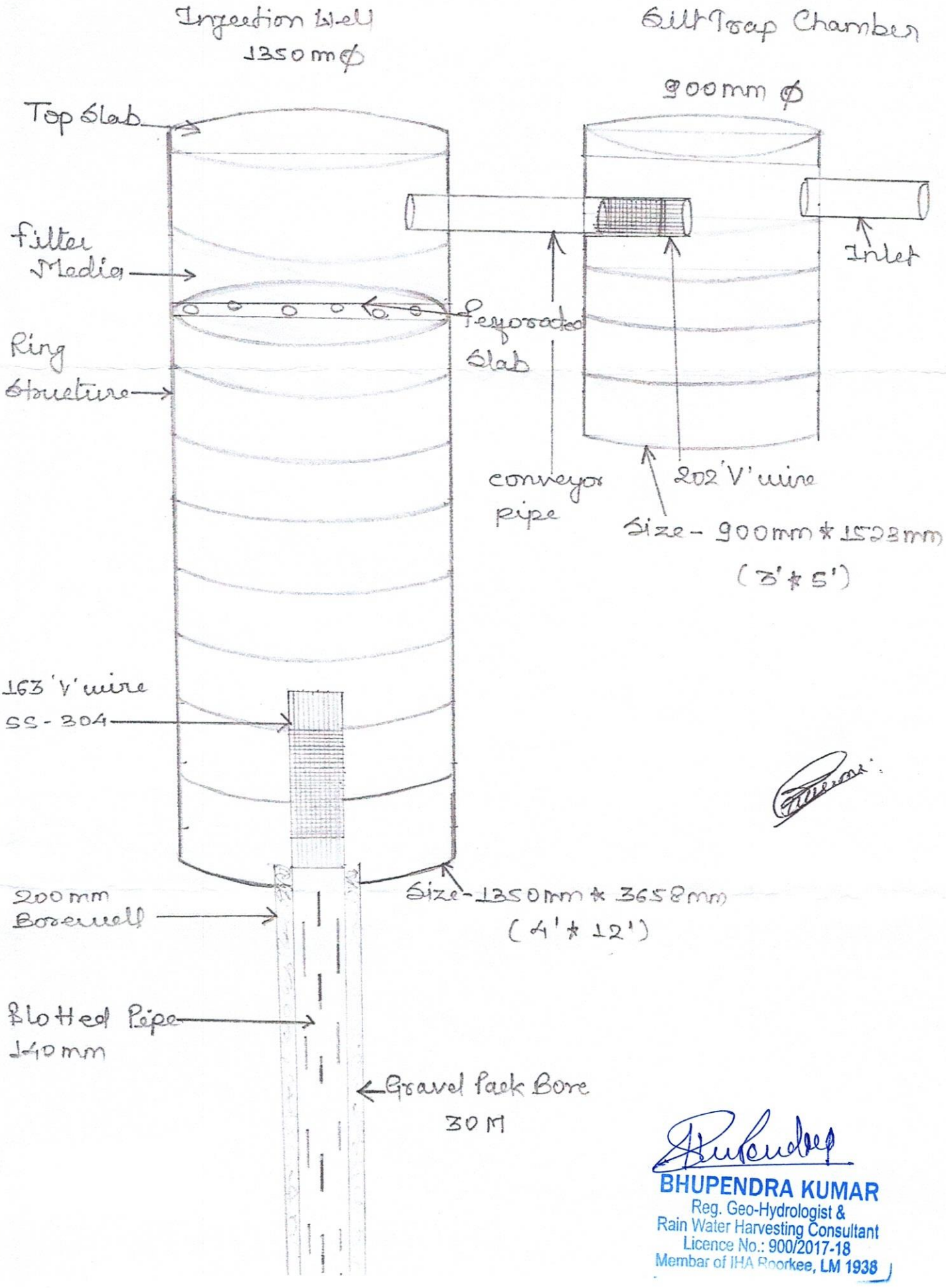
'V' wire Injection Well to Recharge Underground Water



BHUPENDRA KUMAR
Reg. Geo-Hydrologist &
Rain Water Harvesting Consultant
Licence No.: 900/2017-18
Membar of IHA Roorkee, LM 1938

Annexure XXVI: Noise Monitoring Report

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

Registered Office: 63/1, Kailash Vihar, Near Income Tax Office, City Center-II, Gwalior-474 011, M.P., India
0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/ N-25122025/01			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date	:	25/12/2025 to 26/12/2025	Sampling Type	:	NA
Sample Receipt Date	:	30/12/2025	Sample ID	:	N-25122025/01
Sampling Location	:	Hopper Area	Sample Description	:	Ambient Noise Monitoring
Sample Collected/ Submitted by	:	Lab Representative	Protocol used for monitoring	:	IS 9989-2023
Analysis Started On	:	30/12/2025	Analysis Completed On	:	06/01/2026
Meteorological condition during monitoring	:	Clear Sky	Actual duration of Monitoring, (Hrs.)	:	24 Hrs.

Ambient Noise Analysis Results

S. No.	Parameters	Test Method	Test Results		Units
			Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 6:00 am)	
Discipline: Atmospheric Pollution					
1	Leq max.	IS-9989	63.5	46.6	dB (A)
2	Leq min.	IS-9989	52.9	39.8	dB (A)
3	Leq Day	IS-9989	58.5		dB (A)
4	Leq Night	IS-9989	42.2		dB (A)

Ambient Noise Quality Standards as per Noise Pollution (Regulation and control) Rules, 2000

Area Code	Category of Area/Zone	Limits in dB (A) Leq*	
		Day Time	Nighttime
A	Industrial area	75	70
B	Commercial area	65	55
C	Residential area	55	45
D	Silence zone	50	40

Authorized Signatory

****End of the Report****

Note:

1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15 days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15days.
4. The above Results are related to the tested Sample Only.

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

Registered Office: 63/1, Kailash Vihar, Near Income Tax Office, City Center-II, Gwalior-474 011, M.P., India
0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/ N-26122025/02			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date	:	26/12/2025 to 27/12/2025	Sampling Type	:	NA
Sample Receipt Date	:	30/12/2025	Sample ID	:	N-26122025/02
Sampling Location	:	Furnace Area	Sample Description	:	Ambient Noise Monitoring
Sample Collected/ Submitted by	:	Lab Representative	Protocol used for monitoring	:	IS 9989-2023
Analysis Started On	:	30/12/2025	Analysis Completed On	:	06/01/2026
Meteorological condition during monitoring	:	Clear Sky	Actual duration of Monitoring, (Hrs.)	:	24 Hrs.

Ambient Noise Analysis Results

S. No.	Parameters	Test Method	Test Results		Units
			Day Time (6:00 am to 10:00 pm)	Nighttime (10:00 pm to 6:00 am)	
Discipline: Atmospheric Pollution					
1	Leq max.	IS-9989	66.9	48.2	dB (A)
2	Leq min.	IS-9989	53.4	41.0	dB (A)
3	Leq Day	IS-9989	61.3		dB (A)
4	Leq Night	IS-9989	45.6		dB (A)

Ambient Noise Quality Standards as per Noise Pollution (Regulation and control) Rules, 2000

Area Code	Category of Area/Zone	Limits in dB (A) Leq*	
		Day Time	Night Time
A	Industrial area	75	70
B	Commercial area	65	55
	Residential area	55	45
D	Silence zone	50	40

Authorized Signatory

****End of the Report****

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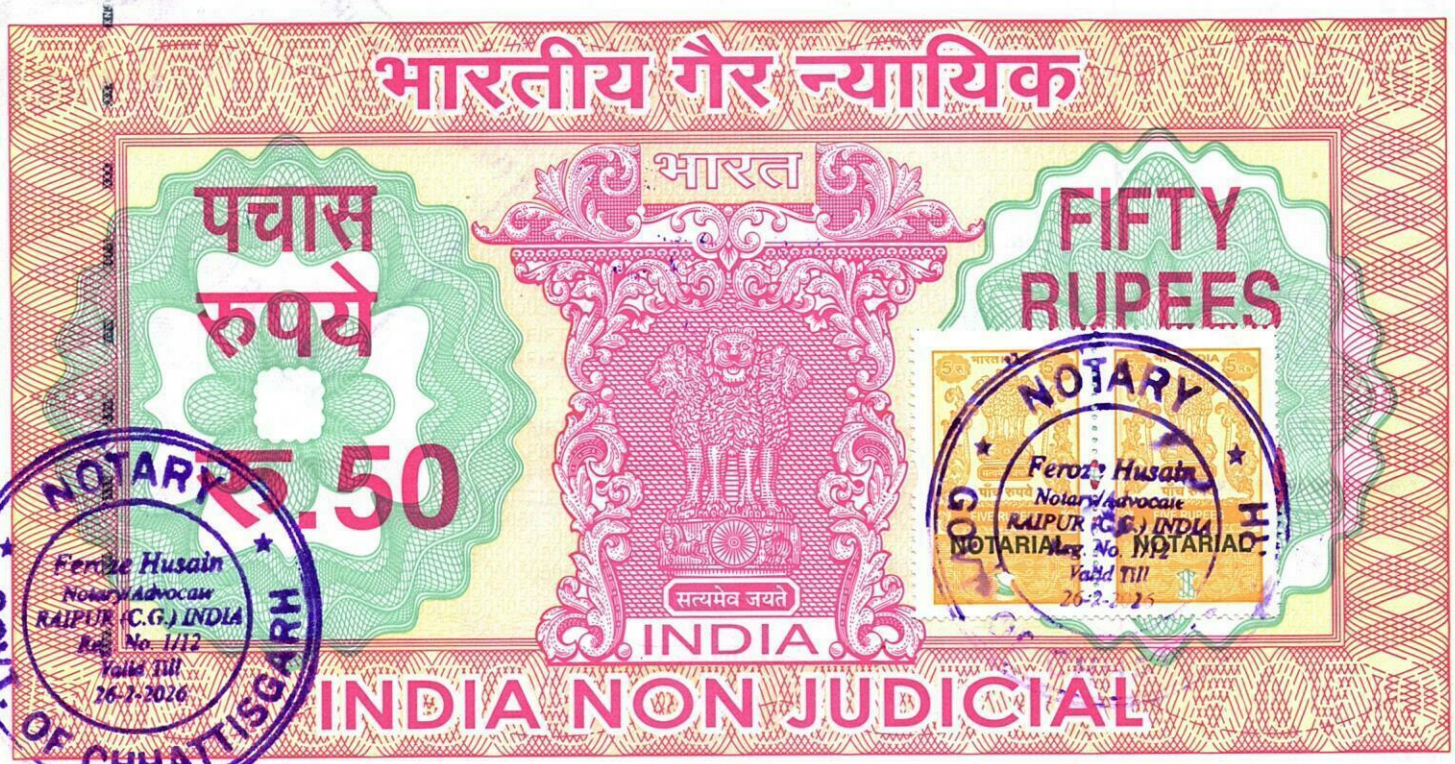
Annexure XXVII: Photographs of Installed LED lights

ALOK FERRO ALLOYS LIMITED
LED LIGHTS PHOTOGRAPHS

Annexure XXVIII: Fly Ash Agreement



छत्तीसगढ़ CHHATTISGARH

AF 534550

Fly Ash Lifting Agreement

This Agreement is being entered upon 1st Day of June of 2025 by and between the parties: -

M/s Alok Ferro Alloys Limited, a company registered under the Companies Act 1956 having its plant and office at Plot No. 458/1, 459, Urla Industrial Complex, Urla, Raipur, 492003, Chhattisgarh, India through Mr. Sanjay kamble S/o Shri Puran lal Kamble, Manager(Sales and Marketing) Aged about 53 years, herein after referred as " **The Company**" (the expression shall mean and include its successors and assignees) of the One Part.

And

M/s Roshan Constructions, through Mr. Aksh Soni, GST No. 22HWSPS6545B2Z4, having its Fly Ash Bricks Manufacturing Plant at WARD NO. 08, VILLAGE JULUM, RAVELI ROAD, ABHANPUR Raipur (C.G.) - 493661, Herein after referred as "**The Fly Ash Brick manufacturer**" (the expression shall mean and include its successors and assignees) of the Second Part.

Hereafter, will be collectively be referred as Both Parties or Parties.

Whereas, Both parties have agreed to enter upon this Agreement for mutual consideration described as follows: -

ALOK FERRO ALLOYS LTD. RAIPUR (C.G.)

ROSHAN CONSTRUCTIONS
Aksh Soni
Proprietor

NOTARY
Feroze Husain
Notary/Advocate

1 SEP 2025

48013

दिनांक 01/08/25

बीमती

विक्रेता ..... आलोक कुमार पुत्र [illegible]

निवासी .....

मार्फत .....

क्रेता ..... मे. [illegible]

निवासी .....

[illegible]

यशवंत कुमार डड़सेना, स्टाम्प विक्रेता सिविल कोर्ट
रायपुर (छ.ग.) मोबा. - 9926629215

DISTRICT TREASURY OFFICER
25 JUL 2025
RAIPUR (CHHATTISGARH)

1) Scope of Work:

(a) The Company has its Captive Power Plant located at Plot No. – 458/1, 459, Urla Industrial Complex, Urla, Raipur, 492003, Chhattisgarh, India and having a Generation capacity of 08MW. The Fly Ash is generated as Solid waste during the generation of Electricity.

(b) The Fly Ash Brick manufacturer have their Brick Plant at WARD NO. 08, VILLAGE JULUM, RAVELI ROAD, ABHANPUR Raipur (C.G.) – 493661 and is willing to lift-off/utilise the fly-ash generated at the Company's Plant site for manufacture of Fly Ash Bricks.

2) Term of Agreement:

Both Parties have agreed to enter upon this Agreement on for a period of 1 year i.e. Financial year 2025-26 and to abide by all the terms and conditions hereon. Further, if both parties are willing then they shall extend or renew the agreement as per their mutual considerations.

3) Utilisation of Fly Ash

The Fly Ash Brick manufacturer agrees to utilise the Fly Ash generated by the Company for manufacturing of Fly Ash Bricks only and to follow all the rules, norms, guidelines and regulations of the Central/ State Pollution Control Boards/ Local Authorities while lifting and utilising the fly Ash.

4) Lifting of Bad Material:

All the terms and conditions of this agreement shall have same meaning and force for lifting of Bad Material from the Company's Plant Site.

5) Transportation

a. The Fly Ash Brick manufacturer has agreed to collect the Fly ash from the company's plant site and shall do so by their own transportation from the Company's Plant site to their Brick Plant at their own cost with prior intimation of Vehicle to the Company.
b. The Fly Ash Brick manufacturer shall ensure and provide the appropriate trucks/vehicles in accordance with schedule given by the Company.
c. The Fly Ash Brick manufacturer shall ensure that the trucks/vehicles sent by them is embedded with equipment of GPS and Geo-Tagging.
d. The Fly Ash Brick manufacturer shall take appropriate measures and precautions to cover the truck/vehicle completely with High quality

NOTARY
Feroze Husain
Notary/Advocate
RAIPUR (C.G.) INDIA
Reg. No. 1/12
Valid Till
26-2-2026

6) Liabilities of the Company:

a. Fly Ash is a Solid waste generated at the Company's Plant during Generation of power whereas the Company is bound by environmental rules and regulations to dispose off the flyash appropriately contributing towards sustainable environment.
b. The Company shall load the fly ash and spray water on the ash while and after loading the fly ash for transportation.
c. The Company will keep record and weigh the quantity of flyash loaded onto the transportation vehicle.

7) Liabilities of The Fly Ash Brick manufacturer

a. The Fly Ash Brick manufacturer shall take responsibility to follow all the rules and guidelines of the Central/ State pollution Control Boards and Local Authorities.
b. The Fly Ash Brick manufacturer shall take appropriate measures and precautions to cover the truck/vehicle completely with high quality tarpaulin.
c. The Fly Ash Brick manufacturer is totally responsible for safe and environment friendly transportation of the Fly Ash from Company's Plant Site to the Brick Plant.
d. The Fly Ash Brick manufacturer will be responsible and liable for the safety and care of the workmen/labourers and Drivers involved in operation of trucks/vehicles used during the Lifting of Fly Ash at the Company's Plant Site and there after.
e. The Fly Ash Brick manufacturer shall ensure that equipment/trucks and vehicles have proper registration, insurance and fitness as per RTO norms.
f. The Fly Ash Brick manufacturer will ensure the Drivers have appropriate licences, fitness and necessary documents for driving of trucks/vehicles.
g. Any Driver/Workmen/Representative of the Fly Ash Brick Manufacturer shall follow all the guidelines and safety rules of the Company. The Fly Ash Brick manufacturer shall be responsible for the conduct of their workmen/labourer/driver at the Company's site and the company may remove workmen/labourer/driver for mis-conduct by any of them from the Company Premises.
h. Once, after lifting the Fly Ash the Fly Ash manufacturer shall keep the Fly Ash in their Brick Plant premises and shall not dump the same anywhere else whether authorised or unauthorised.

8) Violation of Terms of Agreement:

The Company solely reserves the rights to blacklist the Driver or Vehicle in case of violation of terms and conditions of this Agreement and if the violation continues the Company reserves the right to

9) Termination of Agreement:

The Company shall terminate the Agreement when deemed fit or in case of stoppage of solid waste generation.

10) Disputes and Settlement:

a. Any Dispute between the Company and The Fly Ash Brick manufacturer shall be first aimed to be settled through amicable means by mutual considerations.

b. If not resolved amicable the Dispute shall be taken to the appropriate Court/ Authority under the Jurisdiction of Raipur, C.G.

11) Severability:

If any part of the agreement violates any law or rules then that part shall be strike of and the rest of the agreement shall continue to be in force.

IN WITNESS WHEREOFF Both parties Agree to the above terms and conditions through their seal and sign:

The Company

ALOK FERRO ALLOYS LTD. RAIPUR (C.G.)

Witness:1

Aditya Sahu

7389509197

The Fly Ash Brick manufacturer

ROSHAN CONSTRUCTIONS

Akash Soni

Proprietor

Witness:2

9685757977

ATTESTED

Firoze Husain

Notary) Advocate

RAIPUR.(C.G.)

1 SEP 2025

NOTARY

Feroze Husain

Notary/Advocate

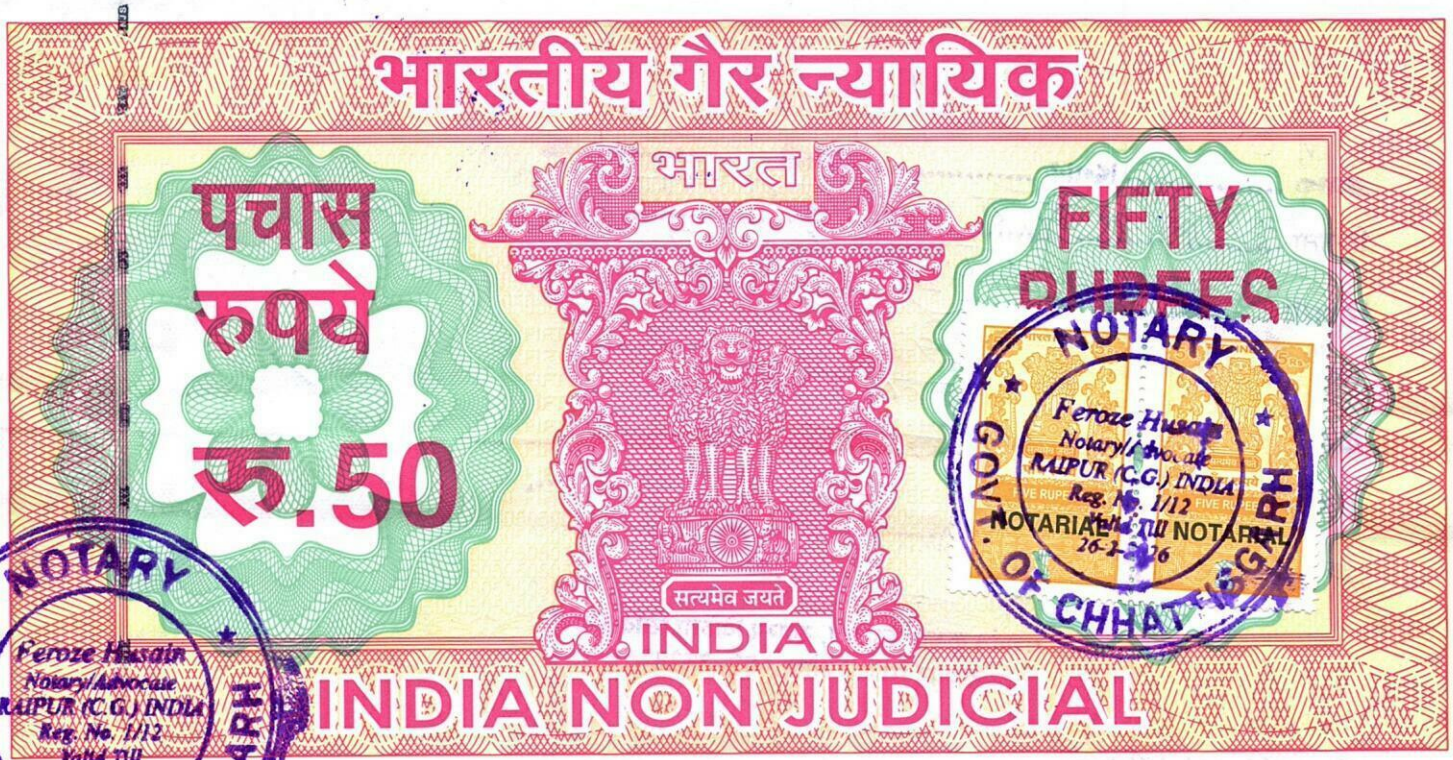
RAIPUR (C.G.) INDIA

Reg. No. 1/12

Valid Till

26-2-2026

GOVT. OF CHHATTISGARH



छत्तीसगढ़ CHHATTISGARH

AF 534519

Fly Ash Lifting Agreement

This Agreement is being entered upon 1st Day of June of 2025 by and between the parties: -

M/s Alok Ferro Alloys Limited, a company registered under the Companies Act 1956 having its plant and office at Plot No. 458/1, 459, Urla Industrial Complex, Urla, Raipur, 492003, Chhattisgarh, India through Mr. Sanjay kamble S/o Shri Puran lal Kamble, Manager(Sales and Marketing) Aged about 53 years, herein after referred as " **The Company**" (the expression shall mean and include its successors and assignees) of the One Part.

And

M/s Arham Bricks, through Mrs. Purva Goswami GST No. 22BLGPG1305N1ZG, having its Fly Ash Bricks Manufacturing Plant at LAXMI NARAYAN REAL ISPAT, KHASRA NO.159,GRAM BORJHARA P.H.N.29 UNNAMED ROAD RAIPUR (C.G.) 492099, Herein after referred as "**The Fly Ash Brick manufacturer**" (the expression shall mean and include its successors and assignees) of the Second Part.

Hereafter, will be collectively be referred as Both Parties or Parties.

Whereas, Both parties have agreed to enter upon this Agreement for mutual consideration described as follows: -

Arham Bricks

Proprietor

ALOK FERRO ALLOYS LTD. RAIPUR (C.G.)

1 SEP 2025

NOTARY

4800८ 04/08/2025 501/-

क्रमांक ..... दिनांक ..... कीमती

विक्रेता आलोक कुमार (इंडसेना एम.)

निवासी उरला रायपुर (छ.ग.)

मार्फत पवन तिवारी

क्रेता मे. अमृतम बिल्डर्स

निवासी बोरइरा रायपुर (छ.ग.)

ई.एम.डी. ..... बैनामा लिखित कराने हेतु .....

यशवंत कुमार डड़सेना, स्टाम्प विक्रेता सिविल कोर्ट
रायपुर (छ.ग.) मोबा.- 9926638215

04/08/2025

DISTRICT TREASURY OFFICER
25 JUL 2025
RAIPUR (CHHATTISGARH)

1) Scope of Work:

(a) The Company has its Captive Power Plant located at Plot No. – 458/1, 459, Urla Industrial Complex, Urla, Raipur, 492003, Chhattisgarh, India and having a Generation capacity of 08MW. The Fly Ash is generated as Solid waste during the generation of Electricity.

(b) The Fly Ash Brick manufacturer have their Brick Plant at LAXMI NARAYAN REAL ISPAT, KHASRA NO.159,GRAM BORJHARA P.H.N.29 UNNAMED ROAD RAIPUR (C.G.) 492099 and is willing to lift-off/utilise the fly-ash generated at the Company's Plant site for manufacture of Fly Ash Bricks.

2) Term of Agreement:

Both Parties have agreed to enter upon this Agreement on for a period of 1 year i.e. Financial year 2025-26 and to abide by all the terms and conditions hereon. Further, if both parties are willing then they shall extend or renew the agreement as per their mutual considerations.

3) Utilisation of Fly Ash

The Fly Ash Brick manufacturer agrees to utilise the Fly Ash generated by the Company for manufacturing of Fly Ash Bricks only and to follow all the rules, norms, guidelines and regulations of the Central/ State Pollution Control Boards/ Local Authorities while lifting and utilising the fly Ash.

4) Lifting of Bad Material:

All the terms and conditions of this agreement shall have same meaning and force for lifting of Bad Material from the Company's Plant Site.

5) Transportation

a. The Fly Ash Brick manufacturer has agreed to collect the Fly ash from the company's plant site and shall do so by their own transportation from the Company's Plant site to their Brick Plant at their own cost with prior intimation of Vehicle to the Company.
b. The Fly Ash Brick manufacturer shall ensure and provide the appropriate trucks/vehicles in accordance with schedule given by the Company.
c. The Fly Ash Brick manufacturer shall ensure that the trucks/vehicles sent by them is embedded with equipment of GPS and Geo-Tagging.
d. The Fly Ash Brick manufacturer shall take appropriate measures and precautions to cover the truck/vehicle completely with High

NOTARY Feroze Husain Notary/Advocate RAIPUR (C.G.) INDIA Reg. No. 1/12 Valid Till 26-2-2026 CHHATTISGARH

6) Liabilities of the Company:

a. Fly Ash is a Solid waste generated at the Company's Plant during Generation of power whereas the Company is bound by environmental rules and regulations to dispose off the flyash appropriately contributing towards sustainable environment.
b. The Company shall load the fly ash and spray water on the ash while and after loading the fly ash for transportation.
c. The Company will keep record and weigh the quantity of flyash loaded onto the transportation vehicle.

7) Liabilities of The Fly Ash Brick manufacturer

a. The Fly Ash Brick manufacturer shall take responsibility to follow all the rules and guidelines of the Central/ State pollution Control Boards and Local Authorities.
b. The Fly Ash Brick manufacturer shall take appropriate measures and precautions to cover the truck/vehicle completely with high quality tarpaulin.
c. The Fly Ash Brick manufacturer is totally responsible for safe and environment friendly transportation of the Fly Ash from Company's Plant Site to the Brick Plant.
d. The Fly Ash Brick manufacturer will be responsible and liable for the safety and care of the workmen/labourers and Drivers involved in operation of trucks/vehicles used during the Lifting of Fly Ash at the Company's Plant Site and there after.
e. The Fly Ash Brick manufacturer shall ensure that equipment/trucks and vehicles have proper registration, insurance and fitness as per RTO norms.
f. The Fly Ash Brick manufacturer will ensure the Drivers have appropriate licences, fitness and necessary documents for driving of trucks/vehicles.
g. Any Driver/Workmen/Representative of the Fly Ash Brick Manufacturer shall follow all the guidelines and safety rules of the Company. The Fly Ash Brick manufacturer shall be responsible for the conduct of their workmen/labourer/driver at the Company's site and the company may remove workmen/labourer/driver for mis-conduct by any of them from the Company Premises.
h. Once, after lifting the Fly Ash the Fly Ash manufacturer shall keep the Fly Ash in their Brick Plant premises and shall not dump the same anywhere else whether authorised or unauthorised.

8) Violation of Terms of Agreement:

The Company solely reserves the rights to blacklist the Driver or Vehicle in case of violation of terms and conditions of this Agreement and if the violation continues the Company reserves the right to

9) Termination of Agreement:

The Company shall terminate the Agreement when deemed fit or in case of stoppage of solid waste generation.

10) Disputes and Settlement:

a. Any Dispute between the Company and The Fly Ash Brick manufacturer shall be first aimed to be settled through amicable means by mutual considerations.

b. If not resolved amicable the Dispute shall be taken to the appropriate Court/ Authority under the Jurisdiction of Raipur, C.G.

11) Severability:

If any part of the agreement violates any law or rules then that part shall be strike of and the rest of the agreement shall continue to be in force.

IN WITNESS WHEREOFF Both parties Agree to the above terms and conditions through their seal and sign:

The Company

ALOK FERRO ALLOYS LTD. RAIPUR (C.G.)

Witness:1

Aditya Sahu
7389509197

The Fly Ash Brick manufacturer

Arham Bricks
Proprietor

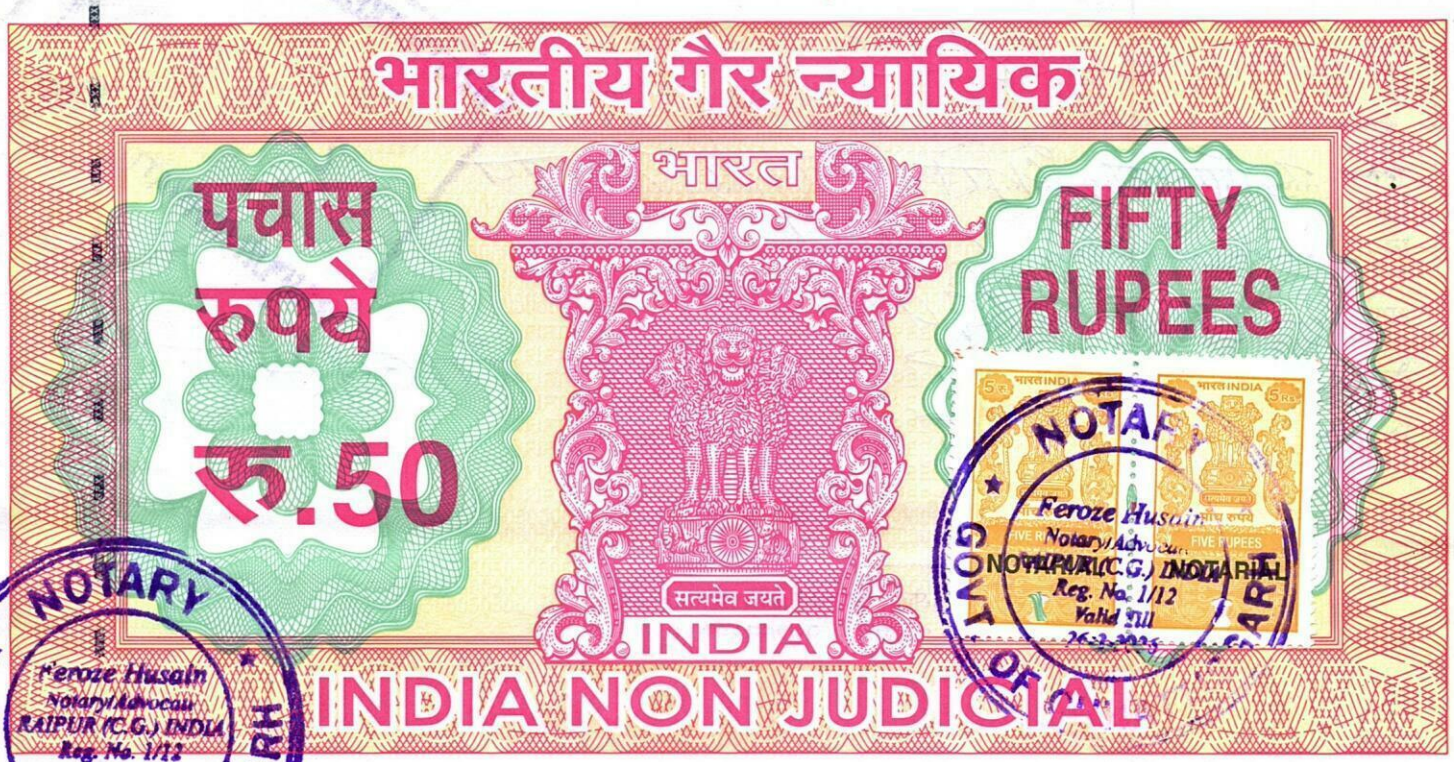
Witness:2

9575661148

ATTESTED
1/9/2025
Firoze Husain
Notary) Advocate
RAIPUR.(C.G.)

NOTARY
Feroze Husain
Notary/Advocate
RAIPUR (C.G.) INDIA
Reg. No. 1/12
Valid Till
26-2-2026
GOVT. OF CHHATTISGARH

1 SEP 2025



छत्तीसगढ़ CHHATTISGARH AF 534518

Fly Ash Lifting Agreement

This Agreement is being entered upon 1st Day of June of 2025 by and between the parties: -

M/s Alok Ferro Alloys Limited, a company registered under the Companies Act 1956 having its plant and office at Plot No. 458/1, 459, Urla Industrial Complex, Urla, Raipur, 492003, Chhattisgarh, India through Mr. Sanjay kamble S/o Shri Puran lal Kamble, Manager(Sales and Marketing) Aged about 53 years, herein after referred as " **The Company**" (the expression shall mean and include its successors and assignees) of the One Part.

And

M/s Greencon Construction Solutions, through Mr. Ravikant Agrawal, GST No. 22ALYPA5610R1ZP, having its Fly Ash Bricks Manufacturing Plant at Vill- Limtara, Ahiwara Road, Dist- Durg, C.G., Herein after referred as "**The Fly Ash Brick manufacturer**" (the expression shall mean and include its successors and assignees) of the Second Part.

Hereafter, will be collectively be referred as Both Parties or Parties.

Whereas, Both parties have agreed to enter upon this Agreement for mutual consideration described as follows: -

NOTARY Feroze Husain Notary/Advocate RAIPUR (C.G.) INDIA

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

- 1 SEP 2025

Greencon Construction Solutions

Proprietor

48010 04/08/25

..... दिनांक ..... रकम 50/-

विक्रेता ..... प्रतिवादी .....

निवासी .....

मार्फत .....

क्रेता .....

निवासी .....

..... बैनामा प्रतिलिपि शुल्क .....

यशवंत कुमार डड़सेना, स्टाम्प विक्रेता सिविल कोर्ट
रायपुर (छ.ग.) मोबा.- 9926639215

DISTRICT TREASURY OFFICE
25 JUL 2025
RAIPUR (CHHATTISGARH)

1) Scope of Work:

(a) The Company has its Captive Power Plant located at Plot No. – 458/1, 459, Urla Industrial Complex, Urla, Raipur, 492003, Chhattisgarh, India and having a Generation capacity of 08MW. The Fly Ash is generated as Solid waste during the generation of Electricity.

(b) The Fly Ash Brick manufacturer have their Brick Plant at Vill-Limtara, Ahiwara Road, Dist- Durg, C.G.and is willing to lift-off/utilise the fly-ash generated at the Company's Plant site for manufacture of Fly Ash Bricks.

2) Term of Agreement:

Both Parties have agreed to enter upon this Agreement on for a period of 1 year i.e. Financial year 2025-26 and to abide by all the terms and conditions hereon. Further, if both parties are willing then they shall extend or renew the agreement as per their mutual considerations.

3) Utilisation of Fly Ash

The Fly Ash Brick manufacturer agrees to utilise the Fly Ash generated by the Company for manufacturing of Fly Ash Bricks only and to follow all the rules, norms, guidelines and regulations of the Central/ State Pollution Control Boards/ Local Authorities while lifting and utilising the fly Ash.

4) Lifting of Bad Material:

All the terms and conditions of this agreement shall have same meaning and force for lifting of Bad Material from the Company's Plant Site.

5) Transportation

a. The Fly Ash Brick manufacturer has agreed to collect the Fly ash from the company's plant site and shall do so by their own transportation from the Company's Plant site to their Brick Plant at their own cost with prior intimation of Vehicle to the Company.
b. The Fly Ash Brick manufacturer shall ensure and provide the appropriate trucks/vehicles in accordance with schedule given by the Company.
c. The Fly Ash Brick manufacturer shall ensure that the trucks/vehicles sent by them is embedded with equipment of GPS and Geo-Tagging.
d. The Fly Ash Brick manufacturer shall take appropriate measures and precautions to cover the truck/vehicle completely with High quality tarpaulin to avoid spillage/leakage during the transportation.

NOTARY
Feroze Husain
Notary/Advocate
RAIPUR (C.G.) INDIA
Reg. No. 1/12
Valid Till
-2026

6) Liabilities of the Company:

a. Fly Ash is a Solid waste generated at the Company's Plant during Generation of power whereas the Company is bound by environmental rules and regulations to dispose off the flyash appropriately contributing towards sustainable environment.
b. The Company shall load the fly ash and spray water on the ash while and after loading the fly ash for transportation.
c. The Company will keep record and weigh the quantity of flyash loaded onto the transportation vehicle.

7) Liabilities of The Fly Ash Brick manufacturer

a. The Fly Ash Brick manufacturer shall take responsibility to follow all the rules and guidelines of the Central/ State pollution Control Boards and Local Authorities.
b. The Fly Ash Brick manufacturer shall take appropriate measures and precautions to cover the truck/vehicle completely with high quality tarpaulin.
c. The Fly Ash Brick manufacturer is totally responsible for safe and environment friendly transportation of the Fly Ash from Company's Plant Site to the Brick Plant.
d. The Fly Ash Brick manufacturer will be responsible and liable for the safety and care of the workmen/labourers and Drivers involved in operation of trucks/vehicles used during the Lifting of Fly Ash at the Company's Plant Site and there after.
e. The Fly Ash Brick manufacturer shall ensure that equipment/trucks and vehicles have proper registration, insurance and fitness as per RTO norms.
f. The Fly Ash Brick manufacturer will ensure the Drivers have appropriate licences, fitness and necessary documents for driving of trucks/vehicles.
g. Any Driver/Workmen/Representative of the Fly Ash Brick Manufacturer shall follow all the guidelines and safety rules of the Company. The Fly Ash Brick manufacturer shall be responsible for the conduct of their workmen/labourer/driver at the Company's site and the company may remove workmen/labourer/driver for mis-conduct by any of them from the Company Premises.
h. Once, after lifting the Fly Ash the Fly Ash manufacturer shall keep the Fly Ash in their Brick Plant premises and shall not dump the same anywhere else whether authorised or unauthorised.

8) Violation of Terms of Agreement:

The Company solely reserves the rights to blacklist the Driver or Vehicle in case of violation of terms and conditions of this Agreement and if the violation continues the Company reserves the right to

9) Termination of Agreement:

The Company shall terminate the Agreement when deemed fit or in case of stoppage of solid waste generation.

10) Disputes and Settlement:

a. Any Dispute between the Company and The Fly Ash Brick manufacturer shall be first aimed to be settled through amicable means by mutual considerations.

b. If not resolved amicable the Dispute shall be taken to the appropriate Court/ Authority under the Jurisdiction of Raipur, C.G.

11) Severability:

If any part of the agreement violates any law or rules then that part shall be strike of and the rest of the agreement shall continue to be in force.

IN WITNESS WHEREOFF Both parties Agree to the above terms and conditions through their seal and sign:

The Company

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

Witness:1

Aditya Sahu
7389509197

The Fly Ash Brick manufacturer

Greencon Construction Solutions

Proprietor

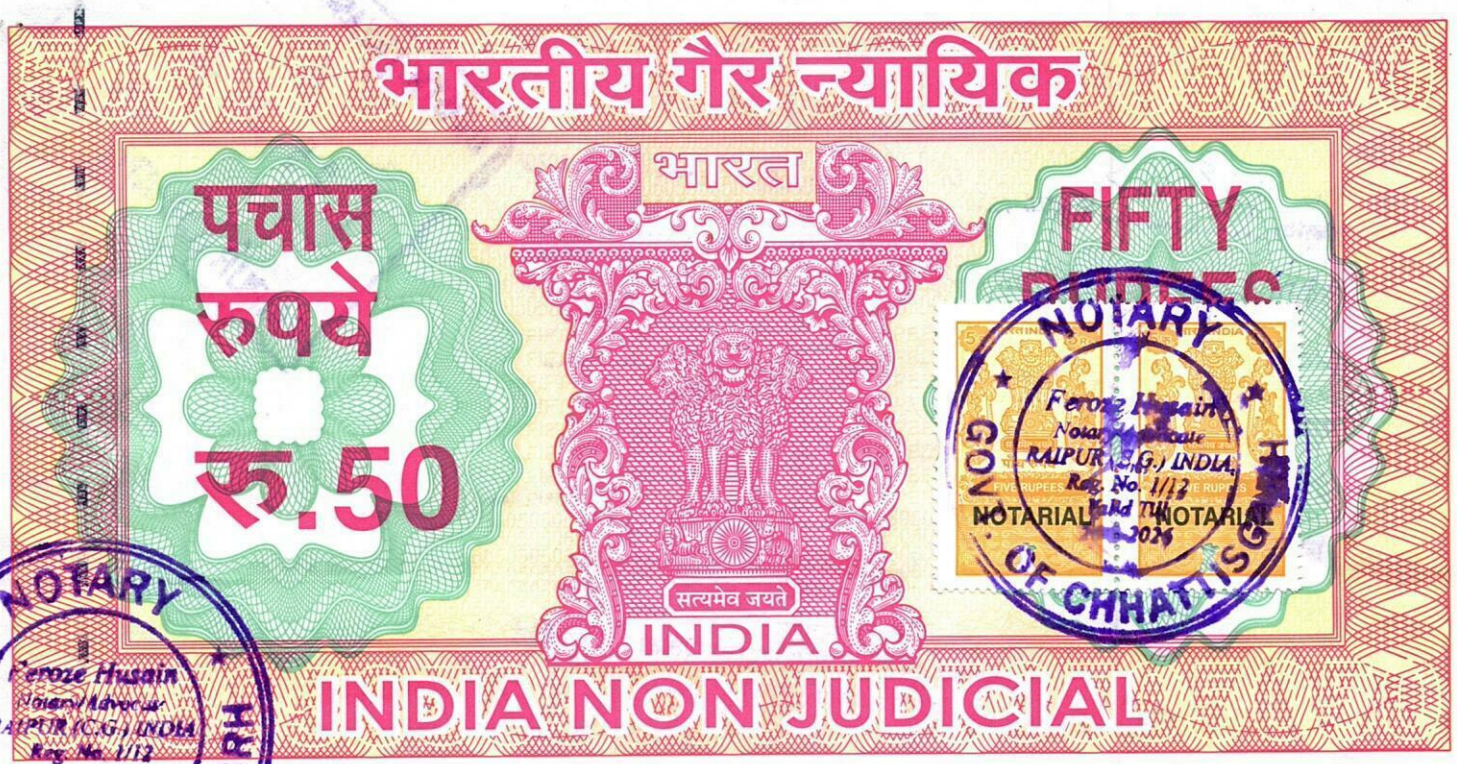
Witness:2

Utsav Agrawal
9993330504

ATTESTED
11.9.12.25
Firoze Husain
Notary) Advocate
RAIPUR.(C.G.)
8931890890

NOTARY
Feroze Husain
Notary/Advocate
RAIPUR (C.G.) INDIA
Reg. No. 1/12
Valid Till
26-2-2026
GOVT. OF CHHATTISGARH

11 SEP 2025



CHHATTISGARH AF 534551

Fly Ash Lifting Agreement

This Agreement is being entered upon 1st Day of June of 2025 by and between the parties: -

M/s Alok Ferro Alloys Limited, a company registered under the Companies Act 1956 having its plant and office at Plot No. 458/1, 459, Urla Industrial Complex, Urla, Raipur, 492003, Chhattisgarh, India through Mr. Sanjay kamble S/o Shri Puran lal Kamble, Manager(Sales and Marketing) Aged about 53 years, herein after referred as " **The Company**" (the expression shall mean and include its successors and assignees) of the One Part.

And

M/s Jay Bhole Bricks, through Mr. Ashutosh Sahu GST No. 22MPKPS4891G1Z7, having its Fly Ash Bricks Manufacturing Plant at GROUND FLOOR, SHOP NO. – 25, LIFT AND SHIFT COMPLEX, RING ROAD NO. – 02, GONDWARA, RAIPUR (C.G.) - 492005, Herein after referred as "**The Fly Ash Brick manufacturer**" (the expression shall mean and include its successors and assignees) of the Second Part.

Hereafter, will be collectively be referred as Both Parties or Parties.

Whereas, Both parties have agreed to enter upon this Agreement for mutual consideration described as follows: -

NOTARY Feroze Husain Notary Advocate RAIPUR (C.G.) INDIA Reg. No. 1/12 Valid Till 26-2-2026 GOVT OF CHHATTISGARH

FERRO ALLOYS LTD. RAIPUR (C.G.)

JAY BHOLE BRICKS
Proprietor

1 SEP 2025

DISTRICT TREASURY OFFICE
25 JUL 2025
RAIPUR (CHHATTISGARH)

क्रमांक 48013 दिनांक 04/08/25 कीमती 82

विक्रेता ..... कलावती पति प्रकाश चन्द्र

निवासी ..... उरला रायपुर

मार्फत .....

क्रेता ..... मे. जय माँ विश्वम्भरी

निवासी ..... गोंदवारी रायपुर

यशवंत कुमार डड़सेना, स्टाम्प विक्रेता सिविल कोर्ट
रायपुर (छ.ग.) मोबा.- 9926639215

1) Scope of Work:

(a) The Company has its Captive Power Plant located at Plot No. – 458/1, 459, Urla Industrial Complex, Urla, Raipur, 492003, Chhattisgarh, India and having a Generation capacity of 08MW. The Fly Ash is generated as Solid waste during the generation of Electricity.

(b) The Fly Ash Brick manufacturer have their Brick Plant at GROUND FLOOR, SHOP NO. – 25, LIFT AND SHIFT COMPLEX, RING ROAD NO. – 02, GONDWARA, RAIPUR (C.G.) – 492005 and is willing to lift-off/utilise the fly-ash generated at the Company's Plant site for manufacture of Fly Ash Bricks.

2) Term of Agreement:

Both Parties have agreed to enter upon this Agreement on for a period of 1 year i.e. Financial year 2025-26 and to abide by all the terms and conditions hereon. Further, if both parties are willing then they shall extend or renew the agreement as per their mutual considerations.

3) Utilisation of Fly Ash

The Fly Ash Brick manufacturer agrees to utilise the Fly Ash generated by the Company for manufacturing of Fly Ash Bricks only and to follow all the rules, norms, guidelines and regulations of the Central/ State Pollution Control Boards/ Local Authorities while lifting and utilising the fly Ash.

4) Lifting of Bad Material:

All the terms and conditions of this agreement shall have same meaning and force for lifting of Bad Material from the Company's Plant Site.

5) Transportation

a. The Fly Ash Brick manufacturer has agreed to collect the Fly ash from the company's plant site and shall do so by their own transportation from the Company's Plant site to their Brick Plant at their own cost with prior intimation of Vehicle to the Company.
b. The Fly Ash Brick manufacturer shall ensure and provide the appropriate trucks/vehicles in accordance with schedule given by the Company.
c. The Fly Ash Brick manufacturer shall ensure that the trucks/vehicles sent by them is embedded with equipment of GPS and Geo-Tagging.
d. The Fly Ash Brick manufacturer shall take appropriate measures and precautions to cover the truck/vehicle completely with High

NOTARY
Feroze Husain
Notary/Advocate
RAIPUR (C.G.) INDIA

6) Liabilities of the Company:

a. Fly Ash is a Solid waste generated at the Company's Plant during Generation of power whereas the Company is bound by environmental rules and regulations to dispose off the flyash appropriately contributing towards sustainable environment.
b. The Company shall load the fly ash and spray water on the ash while and after loading the fly ash for transportation.
c. The Company will keep record and weigh the quantity of flyash loaded onto the transportation vehicle.

7) Liabilities of The Fly Ash Brick manufacturer

a. The Fly Ash Brick manufacturer shall take responsibility to follow all the rules and guidelines of the Central/ State pollution Control Boards and Local Authorities.
b. The Fly Ash Brick manufacturer shall take appropriate measures and precautions to cover the truck/vehicle completely with high quality tarpaulin.
c. The Fly Ash Brick manufacturer is totally responsible for safe and environment friendly transportation of the Fly Ash from Company's Plant Site to the Brick Plant.
d. The Fly Ash Brick manufacturer will be responsible and liable for the safety and care of the workmen/labourers and Drivers involved in operation of trucks/vehicles used during the Lifting of Fly Ash at the Company's Plant Site and there after.
e. The Fly Ash Brick manufacturer shall ensure that equipment/trucks and vehicles have proper registration, insurance and fitness as per RTO norms.
f. The Fly Ash Brick manufacturer will ensure the Drivers have appropriate licences, fitness and necessary documents for driving of trucks/vehicles.
g. Any Driver/Workmen/Representative of the Fly Ash Brick Manufacturer shall follow all the guidelines and safety rules of the Company. The Fly Ash Brick manufacturer shall be responsible for the conduct of their workmen/labourer/driver at the Company's site and the company may remove workmen/labourer/driver for mis-conduct by any of them from the Company Premises.
h. Once, after lifting the Fly Ash the Fly Ash manufacturer shall keep the Fly Ash in their Brick Plant premises and shall not dump the same anywhere else whether authorised or unauthorised.

8) Violation of Terms of Agreement:

The Company solely reserves the rights to blacklist the Driver or Vehicle in case of violation of terms and conditions of this Agreement and if the violation continues the Company reserves the right to

NOTARY
Feroze Husain
Notary/Advocate
RAIPUR (C.G.) INDIA
Reg. No. 1712
Valid Till
26-2-2026

9) Termination of Agreement:

The Company shall terminate the Agreement when deemed fit or in case of stoppage of solid waste generation.

10) Disputes and Settlement:

a. Any Dispute between the Company and The Fly Ash Brick manufacturer shall be first aimed to be settled through amicable means by mutual considerations.

b. If not resolved amicable the Dispute shall be taken to the appropriate Court/ Authority under the Jurisdiction of Raipur, C.G.

11) Severability:

If any part of the agreement violates any law or rules then that part shall be strike of and the rest of the agreement shall continue to be in force.

IN WITNESS WHEREOFF Both parties Agree to the above terms and conditions through their seal and sign:

The Company

ALOK FERRO ALLOYS LTD. RAIPUR (C.G.)

The Fly Ash Brick manufacturer

JAY BHOLE BRICKS
Proprietor

Witness:1

Aditya Sahu
7389509197

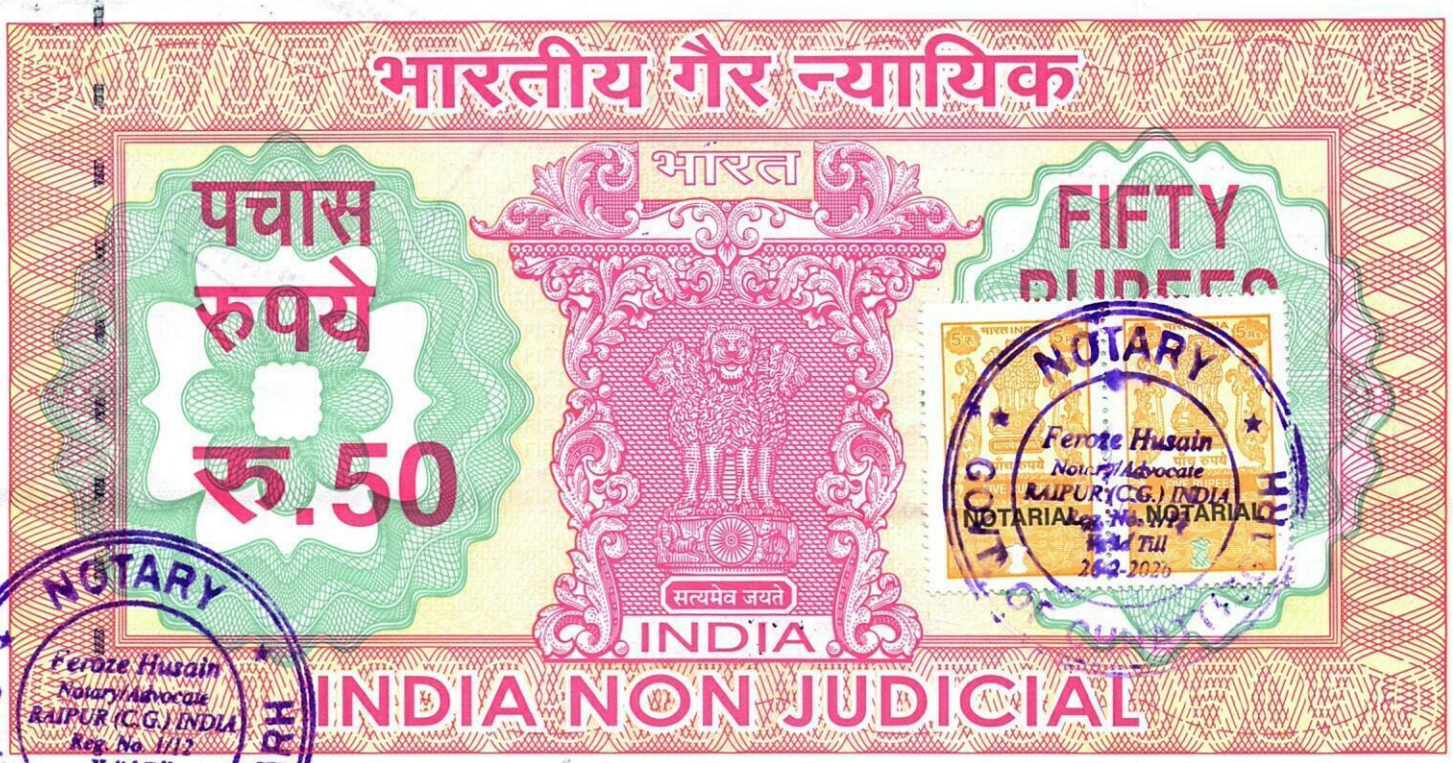
Witness:2

निरंजन कुमार साहू
9753896962

ATTESTED
1/9/2025
Firoze Husain
Notary) Advocate
RAIPUR (C.G.)
893 15 9489

NOTARY
Feroze Husain
Notary/Advocate
RAIPUR (C.G.) INDIA
Reg. No. 1/12
Valid Till
26-2-2026

1 SEP 2025



छत्तीसगढ़ CHHATTISGARH

AF 534517

Fly Ash Lifting Agreement

This Agreement is being entered upon 1st Day of June of 2025 by and between the parties: -

M/s Alok Ferro Alloys Limited, a company registered under the Companies Act 1956 having its plant and office at Plot No. 458/1, 459, Urla Industrial Complex, Urla, Raipur, 492003, Chhattisgarh, India through Mr. Sanjay kamble S/o Shri Puran lal Kamble, Manager(Sales and Marketing) Aged about 53 years, herein after referred as " **The Company**" (the expression shall mean and include its successors and assignees) of the One Part.

And

M/s Sarweshwar Bricks, through Mr. Sagar Khatwani GST No. 22AYDPK5616K1ZI, having its Fly Ash Bricks Manufacturing Plant at NEAR FAURAV UDYOG, 101/29, SARWESHWAR BRICKS, UMIYA MARKET, RING ROAD NO. 02, BHANPURI RAIPUR (C.G.), Herein after referred as "**The Fly Ash Brick manufacturer**" (the expression shall mean and include its successors and assignees) of the Second Part.

Hereafter, will be collectively be referred as Both Parties or Parties.

Whereas, Both parties have agreed to enter upon this Agreement for mutual consideration described as follows: -

- 1 SEP 2025

For, SARWESHWAR BRICKS

Sagar

PROPRIETOR

ALOK FERRO ALLOYS LTD. RAIPUR (C.G.)

48011 01/08/25 82

विक्रेता आलोक कुमार प्लाईवुड

निवासी डोंगरगढ़

मार्फत पवन

क्रेता मै. सर्वेश्वर ट्रेडर्स

निवासी कुम्हारी

परम

यशवंत कुमार डड़सेना, स्टाम्प विक्रेता सिविल कोर्ट
रायपुर (छ.ग.) मोबा.- 9926638215

DISTRICT TREASURY
25 JUL
RAIPUR (CHHATTISGARH)

1) Scope of Work:

(a) The Company has its Captive Power Plant located at Plot No. – 458/1, 459, Urla Industrial Complex, Urla, Raipur, 492003, Chhattisgarh, India and having a Generation capacity of 08MW. The Fly Ash is generated as Solid waste during the generation of Electricity.

(b) The Fly Ash Brick manufacturer have their Brick Plant at NEAR GAURAV UDYOG, 101/29, SARWESHWAR BRICKS, UMIYA MARKET, RING ROAD NO. 02, BHANPURI RAIPUR (C.G.) and is willing to lift-off/utilise the fly-ash generated at the Company's Plant site for manufacture of Fly Ash Bricks.

2) Term of Agreement:

Both Parties have agreed to enter upon this Agreement on for a period of 1 year i.e. Financial year 2025-26 and to abide by all the terms and conditions hereon. Further, if both parties are willing then they shall extend or renew the agreement as per their mutual considerations.

3) Utilisation of Fly Ash

The Fly Ash Brick manufacturer agrees to utilise the Fly Ash generated by the Company for manufacturing of Fly Ash Bricks only and to follow all the rules, norms, guidelines and regulations of the Central/ State Pollution Control Boards/ Local Authorities while lifting and utilising the fly Ash.

4) Lifting of Bad Material:

All the terms and conditions of this agreement shall have same meaning and force for lifting of Bad Material from the Company's Plant Site.

5) Transportation

a. The Fly Ash Brick manufacturer has agreed to collect the Fly ash from the company's plant site and shall do so by their own transportation from the Company's Plant site to their Brick Plant at their own cost with prior intimation of Vehicle to the Company.
b. The Fly Ash Brick manufacturer shall ensure and provide the appropriate trucks/vehicles in accordance with schedule given by the Company.
c. The Fly Ash Brick manufacturer shall ensure that the trucks/vehicles sent by them is embedded with equipment of GPS and Geo-Tagging.
d. The Fly Ash Brick manufacturer shall take appropriate measures

NOTARY
Feroze Husain
Notary/Advocate
RAIPUR (C.G.) INDIA
Reg. No. 1/12
Valid Till
26-2-2026

6) Liabilities of the Company:

a. Fly Ash is a Solid waste generated at the Company's Plant during Generation of power whereas the Company is bound by environmental rules and regulations to dispose off the flyash appropriately contributing towards sustainable environment.
b. The Company shall load the fly ash and spray water on the ash while and after loading the fly ash for transportation.
c. The Company will keep record and weigh the quantity of flyash loaded onto the transportation vehicle.

7) Liabilities of The Fly Ash Brick manufacturer

a. The Fly Ash Brick manufacturer shall take responsibility to follow all the rules and guidelines of the Central/ State pollution Control Boards and Local Authorities.
b. The Fly Ash Brick manufacturer shall take appropriate measures and precautions to cover the truck/vehicle completely with high quality tarpaulin.
c. The Fly Ash Brick manufacturer is totally responsible for safe and environment friendly transportation of the Fly Ash from Company's Plant Site to the Brick Plant.
d. The Fly Ash Brick manufacturer will be responsible and liable for the safety and care of the workmen/labourers and Drivers involved in operation of trucks/vehicles used during the Lifting of Fly Ash at the Company's Plant Site and there after.
e. The Fly Ash Brick manufacturer shall ensure that equipment/trucks and vehicles have proper registration, insurance and fitness as per RTO norms.
f. The Fly Ash Brick manufacturer will ensure the Drivers have appropriate licences, fitness and necessary documents for driving of trucks/vehicles.
g. Any Driver/Workmen/Representative of the Fly Ash Brick Manufacturer shall follow all the guidelines and safety rules of the Company. The Fly Ash Brick manufacturer shall be responsible for the conduct of their workmen/labourer/driver at the Company's site and the company may remove workmen/labourer/driver for mis-conduct by any of them from the Company Premises.
h. Once, after lifting the Fly Ash the Fly Ash manufacturer shall keep the Fly Ash in their Brick Plant premises and shall not dump the same anywhere else whether authorised or unauthorised.

8) Violation of Terms of Agreement:

The Company solely reserves the rights to blacklist the Driver or Vehicle in case of violation of terms and conditions of this Agreement and if the violation continues the Company reserves the right to

9) Termination of Agreement:

The Company shall terminate the Agreement when deemed fit or in case of stoppage of solid waste generation.

10) Disputes and Settlement:

a. Any Dispute between the Company and The Fly Ash Brick manufacturer shall be first aimed to be settled through amicable means by mutual considerations.

b. If not resolved amicable the Dispute shall be taken to the appropriate Court/ Authority under the Jurisdiction of Raipur, C.G.

11) Severability:

If any part of the agreement violates any law or rules then that part shall be strike of and the rest of the agreement shall continue to be in force.

IN WITNESS WHEREOFF Both parties Agree to the above terms and conditions through their seal and sign:

The Company

ALOK FERRO ALLOYS LTD. RAIPUR (C.G.)

The Fly Ash Brick manufacturer

For, SARWESHWAR BRICKS

Sagar

PROPRIETOR

Witness:1

Aditya Sahu

7389509197

Witness:2

Sourabh Khaparwan

9770522221

ATTESTED

Firoze Husain

Notary) Advocate

RAIPUR. (C.G.)

NOTARY

Feroze Husain

Notary/Advocate

RAIPUR (C.G.) INDIA

Reg. No. 1/12

Valid Till

26-2-2026

GOVT. OF CHHATTISGARH

Annexure XXIX: Fly Ash Audit Report

NATIONAL INSTITUTE OF TECHNOLOGY, RAIPUR

(Institute of National Importance)

DEPARTMENT OF MINING ENGINEERING

G.E. Road, Raipur – 492010 (C.G.)

Dr. Manoj Pradhan
Professor (HAG)

No. NITRR/MiningEngg/2025/3875 Date: 28.11.2025

To
The Member Secretary
Central Pollution Control Board (CPCB)
Parivesh Bhawan, East Arjun Nagar
Delhi – 110032

Through: Speed Post / Email submission.

Subject: Submission of Fly Ash Compliance Audit Report for FY 2024–25 – **M/s Alok Ferro Alloys Limited,** Plot No. 458/1, 459, Urla Industrial Area, Urla Raipur Chhattisgarh 492003

Sir,

In compliance with the provisions of the *Fly Ash Notification, 2021*, we are submitting herewith the Ash Compliance Audit Report for the financial year 2024-25 pertaining to the thermal power plant of **M/s Alok Ferro Alloys Limited,** Plot No. 458/1, 459, Urla Industrial Area, Urla Raipur Chhattisgarh 492003

The report includes details on ash generation, utilization, storage, transportation, and compliance with the targets prescribed under the notification.

You are kindly requested to take the report on record.

Thanking you,

Yours faithfully,

Dr Manoj Pradhan
Authorized Auditor

Encl.: Ash Compliance Audit Report for FY 2024–25

Copy to:

1. The Member Secretary, Chhattisgarh Environment Conservation Board (CECB), Raipur.
2. The Regional Director, CPCB, Bhopal – for kind information.

Mobile: (+91) 9826540711
E-mail:mpradhan@nitrr.ac.in/ pradhan_nitrr@yahoo.co.in

Report on

Annual Compliance Audit

for

Ash Disposal of Captive Thermal Power Plantof M/s Alok Ferro Alloys Limited, Raipurfor FY 2024-25

Submitted to

Central Pollution Control Board

Audited by

Dr Manoj Pradhan
Professor (HAG)

Department of Mining Engineering

National Institute of Technology, Raipur

G.E. Road, Raipur, 492010, Chhattisgarh

November - 2025

General Details about the Audit

Client	**:**	**M/s Alok Ferro Alloys Limited**
Assessment Period	**:**	**FY 2024-25**
Audit Location	**:**	**Captive Power Plant of M/s Alok Ferro Alloys Limited**
Work Order No.	**:**	**POWER\25-26\SO\0043**
Issue date	**:**	**19-08-2025**
Date of site visit	**:**	**06.11.2025**
Report No.	**:**	**NITRR/MN/34/C-5/FLYASH/MP/25-26**

Authorized Auditor	**:**	**Dr Manoj Pradhan** Professor (HAG) Department of Mining Engineering National Institute of Technology, Raipur G.E. Road, Raipur, 492010, Chhattisgarh

Report prepared by	**:**	**Mr Anupam Kaushik** Senior Technical Assistant Department of Mining Engineering National Institute of Technology, Raipur G.E. Road, Raipur, 492010, Chhattisgarh

A Report on

Annual Compliance Audit for Ash Disposal of

M/s Alok Ferro Alloys Limited

[For Financial Year – 2024-2025]

Audited by

Dr Manoj Pradhan, Professor (HAG)
National Institute of Technology, Raipur

November – 2025

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1 Introduction

1.1 Brief description of the Thermal Power Plant

The report presented herewith is the report on the annual compliance audit on Ash disposal of 8 MW Captive Thermal Power plant of M/s Alok Ferro Alloys Limited, situated at Plot No. 458/1, 459, Urla Industrial Area, Urla Raipur Chhattisgarh 492003, for Financial year 2024-25. AFAL has an operational ferro alloy manufacturing unit located at Urla Industrial Area, Accholi Village, Raipur Tehsil and District, Chhattisgarh.

The details about the captive thermal power plant have been presented below:

1.	Name of Thermal Power Plant	:	8 MW
2.	Location with full address	:	Plot No. 458/1, 459, Urla Industrial Area, Urla Raipur Chhattisgarh 492003
3.	Purpose of usage (Independent Power Plant supplying electricity to the grid/ Captive Power Plant supplying electricity for self-utilization/ Mixed purpose (with details)	:	Captive Power Plant supplying electricity for self-utilization
4.	Date of issuance and validity of Environmental Clearance (EC) [***Attach*** *hard copy of EC highlighting specific conditions related to ash generation, utilization/disposal, storage, transportation, etc.*]	:	The Plant was established in Feb 2006 before enforcement of EIA notification 2006, therefore there is no requirement of EC.
5.	Date of issuance and validity of Consent to Operate (CTO) [***Attach*** *hard copy of CTO highlighting specific conditions related to ash generation, utilization/disposal, storage, transportation, etc.*]	:	Date of Issue: 31.01.2022 Validity up to 01.02.2022 to 31.01.2027**Annexure-1**

The Stage and Unit-wise details of commissioning / commercial operation date(COD) along with Total Installed Capacity (MWh) have been presented inTable 1.

Table 1: Unit-wise details of TPP

Stage	Unit No.	Capacity (MWh)	COD	Grid connected (IPP) / Captive (CPP) plant	Operational Status during FY
I	-	70080 MWh (8 MW)	01.02.2006	CPP	Operational

1.2 Location of the Thermal Power Plant

The TPP is located inUrla Industrial Area, urla, Accholivillage, Tehsil -Raipur, of the Raipur District of the state of Chhattisgarh. The nearest railway station from the TPP is Urkuraat a distance of 4.3 km towards SE direction and the site is easily accessible via road and rail networks. The nearest road from the project is NH-30 located 2.6 km towards East direction. NH-30 is further connected to the Birgaon Main Road which will also be the approach road for the plant area. Other highways and roads from the project are NH-53 located 7.8 km towards SW & NH-130B at 7.5 km towards SE direction. The exact geographical coordinates (Lat : 21.319065° N, Long : 81.613569° E) of the TPP and other relevant information regarding its surrounding have been presented below in Table 2 and Table 3.

Table 2: Location of TPP

Location of TPP	East	West	North	South
Latitude	21.318594N	21.318744N	21.319083N	21.318161N
Longitude	81.614517E	81.613033E	81.613564E	81.613606E

Table 3: Major areas located around the TPP

Name of major area[#]	Direction from Ash Pond/dyke (from TPP, if no ash pond/dyke)	Aerial Distance (in km) from Ash Pond/dyke (from TPP, if no ash pond/dyke), km	Road Distance (in km) from Ash Pond/dyke (from TPP, if no ash pond/dyke), km

Raipur City (Million plus cities, Non-attainment)	South-East	7	9.2
Birgaon (Municipality)	West	0.2	1.1
Siltara (Critically Polluted Area)	North	6	11
Kharun River	West	6	6.3

Major areas include Million plus cities, Non-attainment, Critically/Severely/Other Polluted Areas, major cities / towns / municipality, Eco-sensitive Zones (ESZ), Reservoirs, major rivers, etc. located around the plant.

Figure-1 represents the Google Earth Image of the TPP along with the nearby areas located within its 10 km radius (aerially).

Figure 1: Google Earth Image of the TPP and nearby areas

The mode of transportation of coal from coal mines to the plant is primarily through Road (100 %)

1.3 Annual Compliance Audit

The details about the annual compliance audit regarding work award, name and designation of the authorized auditor, dates of physical visits to the TPP, and verification of physical/digital records at the plant site have been provided below.

• Work award Reference No. and Date of issue	:	Work Order No.:POWER\25-26\SO\0043 Date of Issue : 19.08.2025
• Name and Designation of the Authorised Auditor	:	**Dr. Manoj Pradhan** Professor (HAG) Department of Mining Engineering
• Name and Designation of Other officials	:	**Mr. Anupam Kaushik** Senior Technical Assistant Department of Mining Engineering
• Name of the Institute	:	**National Institute of Technology, Raipur**
• Financial Year of ash utilization for which audit is carried out [***Attach*** *copy of Annual Implementation Report submitted by the TPP to concerned SPCB, MoEF&CC, CPCB, CEA*]	:	**2024-2025** Fly ash utilization report submitted by the TPP to concerned SPCB has been attached as **Annexure 2.**
• Dates of physical visits to the plant	:	**06-11-2025**

1.4 Scope of the Annual Compliance Audit

The scope of the audit as mentioned in the office memorandum of the Central Pollution Control Board IPC-II/TPP/CP-11/76/2022/1252, dated March 06, 2023 is as follows.

1. Verification of ash generation data pertaining to the financial year based on inspection of records of coal receipt/consumption and average ash content in coal, and comparison of this data with the information provided by the power plant in the Annual Implementation Report.
2. Verification of fly ash and bottom ash utilization data pertaining to the financial year based on inspection of records of ash supplied to the user agencies covered under permitted uses/avenues, and comparison of this data with the information provided by the power plant in the annual implementation report.

3. Verification of net ash disposal into ash ponds data pertaining to the financial year 2022-23 (i.e., difference of ash generation and ash utilization, as above), and comparison of this data with the information provided by the power plant in the annual implementation report.
4. Assessment of total ash storage in operational and un-operational ash ponds and available storage capacity for further disposal at the end of financial year based on details and drawings of ash ponds provided by the power plant and ground verification of the information provided, and comparison of the storage and available storage capacity with the information provided by the power plant in the annual implementation report.
5. Assessment of ash slurry disposal and ash water re-circulation system used during the financial year, in respect ratio of water in the ash disposed to ash ponds, water used for ash slurry disposal to ash ponds, ash water recycled through AWRS, and ash water discharged into environment, based on inspection of records provided by the power plant and ground verification, including the condition of surrounding environment in respect of ash released or breached, and comparison of the ground situation with the information provided by the power plant in the annual implementation report.
6. Any other relevant aspect by the Authorized Auditors.

2 Details of Audit Findings

2.1 Coal receipt/consumption, average ash content in coal and ash generation

The audit findings regarding consumption of fuels (i.e. various grades of Coal and Other fuels), their ash content and generation of ash have been detailed below.

- No. of units (MWh) generated during the FY 2024-25 : 68468.112
- Average plant load factor (PLF) (in %) : 97.7 %
- Peak demand PLF (in %) : --

- Specific coal (blend of coal, rice husk, de-oiled clay) consumption (*as per design/operational parameters of the power plant or any other data/calculations*) : 1.371 MT/MWh (As per FY 2024-25 , based on the total raw material requirement, including coal and other inputs.)

  Power Generation (Tonne/MWh_Coal) is depends on various grades of coal and theirs GCV Specifications .

- % of Ash content in coal and other fuels (*as per design/operational parameters of the power plant or any other data/calculations*) **[*Attach sample copies of the test report of ultimate analysis of coal to be attached*]** : Sample copies of test reports of ultimate analysis of coal and other fuels have been attached as **Annexure-3**.

Table 4: Average and range of Ash content in fuels

Fuel type	Quantity in MT	Average Ash Content (%)	Range (Min.-Max.) of Ash Content (%)
Coal	64835	43.09 %	40 -50 %
Rice Husk	26472		15-22 %
De-Oiled clay	2579.88		60-65 %

- Average GCV of coal received from the coal supplying companies : 2581.41 kcal/kg

  Annexure :3 : Sample Copy of Ultimate Analysis for Coal Quality.

- Estimated quantity of requirement of coal and other fuels to produce the power generated during the FY 2024-25 :

S.NO.	TOTAL RATED GENERATION (in MWh)	Avg. GCV OF COAL (IN kiloCal/Kg)	COAL Qty. (IN TPA)	Coal Consumption (MT/MWh)
1	70080	1700	152527.06	2.18
2	70080	1800	144053.33	2.1
3	70080	1900	136471.58	1.95
4	70080	2000	129648.00	1.85
5	70080	2200	117861.82	1.68
6	70080	2500	103718.40	1.48
7	70080	2600	99729.23	1.42
8	70080	2800	92605.71	1.32
9	70080	3000	86432.00	1.23
10	70080	3200	81030.00	1.16
11	70080	3400	76263.53	1.09
12	70080	3600	72026.67	1.03
13	70080	3800	68235.79	0.97
14	70080	4000	64824.00	0.93
15	70080	4200	61737.14	0.88

- Actual quantity of coal and other fuels consumption and ash generation during the FY 2024-25 (month wise and annual) : Actual quantity of fuel consumed :

  93,886.88 MT

  Actual quantity of Ash (Fly Ash + Bottom) Generated :

  40452 .43 MT

- Verification of the daily/weekly/monthly coal receipt records of the power plant with sample copies to be attached, : Sample Copy of daily, weekly, and monthly receipt records of coal and other fuels have been Attached as **Annexure-4**.

- Difference (in MT & %) in total estimated vs total actual quantity of coal consumption and ash generation : -------

- The unit-wise and total capacity of fly ash and bottom ash handling units, and capacity of dry fly ash silos in comparison to the prescribed capacity have been presented in Table 5.

Table 5: Unit-wise and total Prescribes and Actual capacities of Ash handling units and dry fly ash silos

Unit No.	Capacity of Fly Ash handling Unit		Capacity of Bottom Ash handling Unit		Capacity of Dry Fly Ash silos	
	Prescribed	Actual	Prescribed	Actual	Prescribed	Actual
	-----	------	-----	-----	**----**	183.6 MT

- Additionally, the quantities of fly ash and bottom ash actually generated in comparison to its generation as per the design of ESP/ash evacuation/ash handling units have been presented in the Table 6.

Table 6: Quantities of Ash actually generated in comparison to designed capacity

Month	Quantity of Fly ash generated, MT		Quantity of Bottom ash generated, MT	
	As per design	Actual	As per design	Actual
Apr-24	-----	2564.1695	-----	452.50
May-24	-----	2331.6265	-----	411.46
Jun-24	-----	2605.114	-----	459.73
Jul-24	-----	2076.414	-----	366.43
Aug-24	-----	3315.2635	-----	585.05
Sep-24	-----	2145.7145	-----	378.66
Oct-24	-----	3024.7845	-----	533.79
Nov-24	-----	2832.9735	-----	499.94
Dec-24	-----	4226.455	-----	745.85
Jan-25	-----	3731.568	-----	658.51
Feb-25	-----	3723.3825	-----	657.07
Mar-25	-----	1807.1	-----	318.90
Total (Annual)	**-----**	**34384.57**	**-----**	**6067.86**

2.2 Utilization of fly ash, bottom ash and legacy/previously stored ash

The audit findings regarding utilization of fly ash, bottom ash and legacy/previously stored ash have been detailed below. The total quantity of fly ash, bottom ash and legacy ash utilized by the TPP during the FY 2024-25 (in only the prescribed areas/avenues of usage) are dispatch to Bricks Manufactures.This sums up to the total quantity of ash utilized as 40452.43 MT. The month wise details of quantities of ash utilized along with the area of usage have been detailed in Table 7, Table 8 and Table 9.

Table 7: Quantity of fly ash utilized along with % utilization in prescribed areas of usage

Month	Quantity of fly ash utilized, MT	Area(s)/Avenue(s) of usage (% of quantity utilized in each area)
Apr-24	2564.1695	Bricks Manufacturing (100%)
May-24	2331.6265	Bricks Manufacturing (100%)
Jun-24	2605.114	Bricks Manufacturing (100%)
Jul-24	2076.414	Bricks Manufacturing (100%)
Aug-24	3315.2635	Bricks Manufacturing (100%)
Sep-24	2145.7145	Bricks Manufacturing (100%)
Oct-24	3024.7845	Bricks Manufacturing (100%)
Nov-24	2832.9735	Bricks Manufacturing (100%)
Dec-24	4226.455	Bricks Manufacturing (100%)
Jan-25	3731.568	Bricks Manufacturing (100%)
Feb-25	3723.3825	Bricks Manufacturing (100%)
Mar-25	1807.1	Bricks Manufacturing (100%)
Total (Annual)	**34384.57**	**Bricks Manufacturing (100%)**

Table 8: Quantity of bottom ash utilized along with % utilization in prescribed areas of usage

Month	Quantity of bottom ash utilized, MT	Area(s)/Avenue(s) of usage (% of quantity utilized in each area)
Apr-24	452.50	Bricks Manufacturing (100%)
May-24	411.46	Bricks Manufacturing (100%)
Jun-24	459.73	Bricks Manufacturing (100%)
Jul-24	366.43	Bricks Manufacturing (100%)
Aug-24	585.05	Bricks Manufacturing (100%)
Sep-24	378.66	Bricks Manufacturing (100%)
Oct-24	533.79	Bricks Manufacturing (100%)
Nov-24	499.94	Bricks Manufacturing (100%)
Dec-24	745.85	Bricks Manufacturing (100%)
Jan-25	658.51	Bricks Manufacturing (100%)
Feb-25	657.07	Bricks Manufacturing (100%)
Mar-25	318.90	Bricks Manufacturing (100%)
Total (Annual)	**6067.86**	**Bricks Manufacturing (100%)**

Table 9: Quantity of legacy ash utilized along with % utilization in prescribed areas of usage

Month	Quantity of legacy ash utilized,MT	Area(s)/Avenue(s) of usage (% of quantity utilized in each area)
Apr-24	NIL	NA
May-24	NIL	NA
Jun-24	NIL	NA
Jul-24	NIL	NA
Aug-24	NIL	NA
Sep-24	NIL	NA
Oct-24	NIL	NA
Nov-24	NIL	NA
Dec-24	NIL	NA
Jan-25	NIL	NA
Feb-25	NIL	NA
Mar-25	NIL	NA
Total (Annual)	NIL	NA

The details about the ash receiving units and their proximity with the TPP have been presented in Table 10.

Table 10: Details about Ash receiving units

Details about Ash receiving Unit FY 2024-25				
S. No.	**Name of the Ash Receiving Unit**	**Full address of the ash receiving Unit**	**Direction from the TPP**	**Approximate Distance from TPP**
1	M/s Bharat Bricks Industries	Ward No. 09, Doma Basti, Sejbahar, Riapur.	30 KM	South East
2	M/s Jain Fly Ash Bricks	Chhachan Peri Tahsil, Riapur.	33 KM	South East
3	M/s Shanti Enterprises	Borjhara, Tendua, Raipur	4.2 KM	South West

The records for ash utilization in the permitted avenues during the FY 2024-25 either by the ash receiving units (user agencies) were matched with the ash dispatch records,. The samples of agreement, dispatch records and receipts, etc. have been attached as **Annexure-5**.

The total current ash utilization during the FY 2024-25 by the TPP is 40452.40 MT achieving 100 % compliance utilization against the prescribed minimum annual percent utilization target i.e. >80%. Whereas, the cumulative ash utilization during the ongoing compliance cycle till the FY 2024-25 has been summarized in Table 11.

Table 11:Summary of cumulative ash utilization during on-going compliance cycle till FY 2024-25

Quantity of Ash	FY 2022-23 in MT	FY 2023-24 in MT	FY 2024-25 in MT
Ash Generation	10052	15975.74	40452.43
Ash Utilized	10052	15975.74	40452.43

Cumulative Ash generation	10052	26027.74	66,480.17
Cumulative Ash Utilization	10052	26027.74	66,480.17

The quantity of un-utilized ash stored/disposed in the FY 2024-25 is Nil. Accordingly, the estimated amount of environmental compensation for not meeting the prescribed percent utilization target during the compliance cycleis Rs Nil.

2.3 Ash Disposal into Ash Ponds/Dykes in the FY

NA

2.4 Total ash storage in operational and un-operational ash ponds and available storage capacity for further disposal at the end of financial year

NA

2.5 Ash slurry disposal and Ash Water Re-Circulation System (AWRS) and ash water discharged into environment

NA

2.6 Effects of Ash Ponds/dykes O&M, storage and transportation of ash on environment, condition of surrounding environment, and steps taken for improvement of environmental condition

NA

- **Comments on Environmental status/ any adverse impact on roads/ roadsides/ river bodies/ etc. nearby plant with images based on physical observations,**

Not noticed.

- **Comments on Effects of Ash Ponds/dykes O&M, storage and transportation of ash on environment.**

NA

3 Audit Summary/Conclusions

- **Coal Consumption and Ash Generation**

The plant has not submitted Annual Implementation Report to CPCB. They reported total ash generation of 40,452.40 MT, comprising fly ash 34384.54 MT and bottom ash 6067.89 MT as per the ash utilization report submitted to CECB. Based on verification of supporting documents, the data submitted to CECB is found correct.

- **Compliance Cycle and Applicable Ash Utilization Target**

As per CEA's report/ Annual ash utilization report submitted to CECB or other authority on ash utilization for FY 2021–22, the plant achieved 100 % utilization. Accordingly, the plant falls under the three-year compliance cycle with a minimum annual utilization target of >80 % as per the Ash Notification, 2021.

- **Current Year Ash Utilization**

Details of current year ash utilization are given below:

Ash type	Quantity generated, MT	Quantity utilized. MT	% Utilization	Prescribed Min Utilization, MT	Compliance status
Fly ash	34,384.57	34,384.57	100%	80 %	complied
Bottom ash	6067.86	6067.86	100%	80 %	complied
Legacy ash	Nil	NA	NA	NA	NA
Previously unutilised stored ash if any	Nil	NA	NA	NA	NA

- **Sector-wise Utilization Pattern**

Share of major ash utilization sectors during the audit period is as follows:

Sector	Quantity (MT)	% Share
Brick making	40,452.40 (Fly Ash + Bottom Ash)	100 %

- **Cumulative Ash Utilization in Current Cycle**

Cumulative ash utilization till the end of the financial year stands at 66,480.17 MT corresponding to 100% utilization against the cycle's cumulative target of 100%.

- **Ash Storage Status**

Ash storage position during the financial year is as follows:

Description	Quantity (MT)
-----	nil

- **Status of Ash Data Uploading**

The plant has uploaded monthly, yearly, and auxiliary ash data on the CPCB/CEA portal. Observed discrepancies, if any: NIL

- **Submission of Annual Implementation Report (AIR)**

The plant has not submitted the Annual Implementation Report for FY 2024-25. Howeverthey have submitted fly ash utilization report to SPCB (CECB).

- **Environmental Compensation Estimate**

Based on the shortfall in achieving the prescribed annual utilization target, the estimated environmental compensation as per CPCB methodology is ₹ Nil.

- **Compliance with Ash Notification Provisions**

The provisions of the Ash Notification 2021 are being complied by the plant except submission of Annual Implementation Report for FY 2024-25.

4 Recommendations for improvement

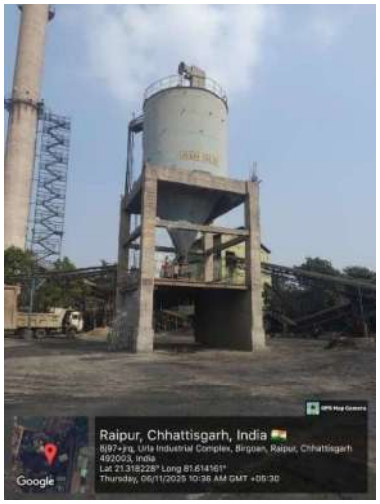
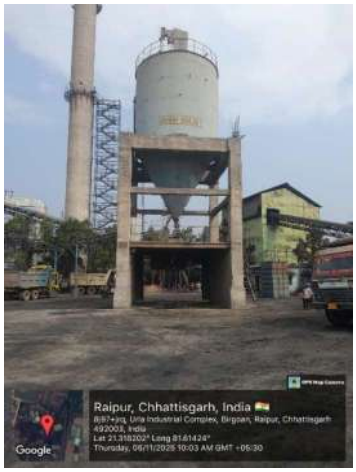
The plant management is advised to submit the Annual Implementation Report to CPCB. They are also advised to maintain proper records of ash utilization and to ensure that the ash being supplied is utilized in an environmentally sound manner and only in the areas specified under the Ash Notification. They should also obtain receipts from the parties to whom the ash is supplied.

Signature and Seal of the Authorized Auditor

Dr Manoj Pradhan
Professor (HAG)
Department of Mining Engineering
National Institute of Technology, Raipur
G.E. Road, Raipur, 492010, Chhattisgarh

डॉ. मनोज प्रधान/Dr. Manoj Pradhan
प्राध्यापक (उ.शै.ग्रे.)/Professor (HAG)
खनन अभियांत्रिकी विभाग/Dept. of Mining Engineering
राष्ट्रीय प्रौद्योगिकी संस्थान/National Institute of Technology
रायपुर (छत्तीसगढ़)/Raipur (Chhattisgarh)

Figure 2: Photographs taken during site visit

	
Entry Gate	Water Sprinkling Near Fly Ash Silo
Turbine	Control Room
	
ESP	Fly ash Dispatch and Bottom Ash Dispatch Silo

ANNEXURES

CHHATTISGARH ENVIRONMENT CONSERVATION BOARD
Paryavas Bhawan, North Block, Sector - 19,
Nava Raipur Atal Nagar, District - Raipur (C.G.)
E-mail - hocecb@gmail.com

No. 8864 /TS/CECB/ 2022 Nava Raipur Atal Nagar, Dated 04 / 03 / 2022

To,

M/s Alok Ferro Alloys Limited
Plot No. – 458/1, 459,
Urla Industrial Area,
District - Raipur (C.G.)

Sub: - Renewal of the 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.

Ref: -

1. Consent of the Board issued under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 vide letter no. 12802/EZ/TS/PCB/1996 dated: 15/07/1996 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 vide letter no. 12804/EZ/TS/PCB/1996 dated: 15/07/1996.
2. Last renewal 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. 10447/TS/CECB/2020 Nava Raipur Atal Nagar, dated: 22/02/2020.
3. Your online application dated: 01/12/2021 (online application no. 8756042).

--:: oo ::--

With reference to your above application, consents 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 are hereby renewed for a period of five years i.e. from 01/03/2022 to 28/02/2027, subject to the fulfillment of the terms and conditions incorporated in the water consent letter no. 12802/EZ/TS/PCB/1996 dated: 15/07/1996 and air consent letter no. 12804/EZ/TS/PCB/1996 dated: 15/07/1996, subsequent renewals of consent letters issued by the Board and additional conditions mentioned below.

These renewal of consents are valid for product and production capacity of: -

Name of Product	Production Capacity
Ferro Chrome / Alloys	1,208 Metric Tonnes Per Month (One Thousand Two Hundred Eight Metric Tonnes Per Month) i.e. 14,496 Metric Tonnes Per Year (Fourteen Thousand Four Hundred Ninety Six Metric Tonnes Per Year)

Additional Conditions

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

1. Industry shall operate and maintain the effluent treatment system effectively and regularly. Industry shall ensure treated effluent quality within the standards prescribed by Board published in Gazette Notification dated 25.03.88. 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 outside the factory premises shall be maintained at all the time.
2. Industry shall provide safe and scientific arrangement for collection, storage, handling, transportation and disposal of all solid wastes such as slag etc.
3. Industry shall use fly ash brick, fly ash blocks or fly ash based products in their construction/repairing activities.
4. Industry shall ensure transportation of raw materials by properly covered vehicles. Vehicles used for transporting the wastes / sludge / ash shall be covered with tarpaulins and optimally loaded. Vehicular emissions shall be kept under control and regularly monitored. Industry shall also ensure use of mechanically covered vehicles for transportation of raw materials on or before 12/07/2023..
5. All internal roads shall be maintained pucca. Good housekeeping practices shall be adopted by the industry.
6. Industry shall obtain letter of authorization under Hazardous and Other Wastes (Management and Trans Boundary Movement) Rules, 2016 from the Board and ensure the compliance of the rule.
7. Industry shall enhance the capacity of rainwater harvesting systems to increase the ground water recharge.
8. Wide green belt of broad leaf local species shall be maintained along the plant premises. As far as possible maximum area of open spaces shall be utilized for plantation purposes. Green belt / plantation shall be maintained within and around the plant premises in at-least 33 % area of total plant area.
9. Industry shall submit Environment Statement to this Board as per provision of Environment (Protection) amendment Rule, 1993 for the previous year ending 31st March on or before 30th September every year.
10. Industry shall follow the terms and conditions stipulated in the Chhattisgarh Environment Conservation Board's order no. 7261/TS/CECB/2015, Raipur dated 06/02/2015. In case of non compliance of any terms and conditions mentioned above or mentioned in the above order, this renewal of the consent may be cancelled.
11. This renewal of consent is being issued under the "Scheme of Auto-Renewal of Consent" of the Board issued vide office order no. 5937

dated 29/01/2018 as per self certificate submitted by authorized signatory Mr. Ajay Dubey, Director, M/s Alok Ferro Alloys Limited, Plot No. – 458/1, 459, Urla Industrial Area, District - Raipur (C.G.).

12. In case, if the capital investment is increased by such amount that the total investment exceeds the range for which renewal fees has been paid, the industry shall have to pay the difference amount of renewal fees for the corresponding block years.
13. In case, the prescribed fee payable is amended in future, the industry shall be liable to pay the difference amount for corresponding block years.
14. Chhattisgarh Environment Conservation Board reserves the rights to revoke the consent / renewal of consent at any time for any violation/non-compliance.

B. Air (Prevention and Control of Pollution) Act, 1981

1. Industry shall operate and maintain the existing air pollution control systems effectively and regularly to ensure the particulate matter emission from any point source below 50 mg/Nm^3 all the time. Effective steps shall be taken to control fugitive emission inside the factory premises. 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.
2. Industry shall install online Continuous Emission Monitoring System - CEMS in all the stack(s) and ensure availability of real time data in CECB server.
3. Industry shall use fly ash brick, fly ash blocks or fly ash based products in their construction/repairing activities.
4. All internal roads shall be maintained pucca. Good housekeeping practices shall be adopted by the industry.
5. Industry shall ensure transportation of raw materials by properly covered vehicles. Vehicles used for transporting the wastes / sludge / ash shall be covered with tarpaulins and optimally loaded. Vehicular emissions shall be kept under control and regularly monitored. Industry shall also ensure use of mechanically covered vehicles for transportation of raw materials on or before 12/07/2023..
6. Industry shall obtain letter of authorization under Hazardous and Other Wastes (Management and Trans Boundary Movement) Rules, 2016 from the Board and ensure the compliance of the rule.
7. Wide green belt of broad leaf local species shall be maintained along the plant premises. As far as possible maximum area of open spaces shall be utilized for plantation purposes. Green belt / plantation shall be maintained within and around the plant premises in at-least 33 % area of total plant area.
8. Industry shall submit Environment Statement to this Board as per provision of Environment (Protection) amendment Rule, 1993 for the

previous year ending 31st arch on or before 30th September every year.

9. Industry shall follow the terms and conditions stipulated in the Chhattisgarh Environment Conservation Board's order no. 7261/TS/CECB/2015, Raipur dated 06/02/2015. In case of non compliance of any terms and conditions mentioned above or mentioned in the above order, this renewal of the consent may be cancelled.

10. This renewal of consent is being issued under the "Scheme of Auto-Renewal of Consent" of the Board issued vide office order no. 5937 dated 29/01/2018 as per self certificate submitted by authorized signatory Mr. Ajay Dubey, Director, M/s Alok Ferro Alloys Limited, Plot No. – 458/1, 459, Urla Industrial Area, District - Raipur (C.G.).

11. In case, if the capital investment is increased by such amount that the total investment exceeds the range for which renewal fees has been paid, the industry shall have to pay the difference amount of renewal fees for the corresponding block years.

12. In case, the prescribed fee payable is amended in future, the industry shall be liable to pay the difference amount for corresponding block years.

13. Chhattisgarh Environment Conservation Board reserves the rights to revoke the consent / renewal of consent at any time for any violation/non-compliance.

Member Secretary
Chhattisgarh Environment Conservation Board
Nava Raipur Atal Nagar
District - Raipur (C.G.)

Endt. No. 8865 /TS/CECB/ 2022 Nava Raipur Atal Nagar, Dated 04 / 03 / 2022

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
Nava Raipur Atal Nagar
District - Raipur (C.G.)
MS

Signature valid
Digitally Signed by :R[illegible] Tiwari
Date: 2022.03.04 21:13:12 IST

HIRA
ALOK FERRO ALLOYS

AFAL/ENV/2025-26/42

DATE: - 10.05.2025

To
The Regional Officer
Chhattisgarh Environment Conservation Board,
New Office Building, Ring Road No. – 02
Tatibandh, Raipur (C.G.)

Subject: Submission of Fly Ash Generation and Utilization Report for the period of 01.04.2024 to 31.03.2025 (FY 2024-25).

Reference: 1. Your Letter No. 93/RO/CECB/2025 Raipur dated 04.04.2025.
2. Divisional Headquarters letter number 239 dated 03.04.2025.

Respected Sir,

This is in reference to above cited subject matter, we are submitting here with Fly Ash Generation and Utilization report for the period of 01.04.2024 to 31.03.2025 (FY 2024-25) of our 08 MW Captive Power Plant at **M/s Alok Ferro Alloys Limited**, situated at Plot No. 458/1, 459, Urla Industrial Area, Urla Raipur Chhattisgarh-492003. Report of the same is enclosed in your given format as **Annexure-I.**

Kindly acknowledge the receipt of the same.

Thanking You

Your Faithfully

For, ALOK FERRO ALLOYS LTD.

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

Authorized Signatory

C/c: - Member Secretary, Chhattisgarh Environment Conservation Board, Sector-19, Paryawas Bhawan, Atal Nagar, Naya Raipur (C.G.).

ALOK FERRO ALLOY LIMITED

Plot No.458/1 & 459, Urla Industrial Complex, Raipur 492003 (C.G.)

Annexure - I

स्थापित कोल आधारित थर्मल पावर प्लांट उद्योगों से उत्पान फ्लाई ऐश की उपयोगिता की स्थिति के संबंध में जानकारी

(दिनांक 01.04.2024 से 31.03.2025 तक की अवधि का विवरण)

(मात्रा मीट्रिक टन में)

क्रमांक	थर्मल पावर उद्योग का नाम एवं पता	क्षमता (मेगा वॉट में)	उत्पन्न फ्लाई ऐश की मात्रा (दिनांक 01.04.2024 से दिनांक 31.03.2025 तक की अवधि में)		जिस प्रयोजन में फ्लाई ऐश को उपयोग /प्रदाय किया गया हैं , का विवरण						कुल	प्रतिशत उपयोग
			माह	मात्रा	सीमेंट प्लांट को प्रदाय / उपयोग	ईंट निर्माण	भू भराव	ऐश डाइक रजिंग रैजिंग / निर्माण	कृषि कार्य हेतु	खदान में भराव	अन्य (जिस प्रयोजन में फ्लाई ऐश का उपयोग किया गया है, उसकी संक्षिप्त जानकारी दे)	
1	**Alok Ferro Alloys Ltd.,** situated at 458/1, 459 Urla Industrial Complex, Raipur - 492003 Chhattisgarh	8 MW (Captive Power Plant)	Apr-24	3016.67	0	3016.67	0	0	0	0	0	3016.67	100%
			May-24	2743.09	0	2743.09	0	0	0	0	0	2743.09	100%
			Jun-24	3064.84	0	3064.84	0	0	0	0	0	3064.84	100%
			Jul-24	2442.84	0	2442.84	0	0	0	0	0	2442.84	100%
			Aug-24	3900.31	0	3900.31	0	0	0	0	0	3900.31	100%
			Sep-24	2524.37	0	2524.37	0	0	0	0	0	2524.37	100%
			Oct-24	3558.57	0	3558.57	0	0	0	0	0	3558.57	100%
			Nov-24	3332.91	0	3332.91	0	0	0	0	0	3332.91	100%
			Dec-24	4972.30	0	4972.30	0	0	0	0	0	4972.30	100%
			Jan-25	4390.08	0	4390.08	0	0	0	0	0	4390.08	100%
			Feb-25	4380.45	0	4380.45	0	0	0	0	0	4380.45	100%
			Mar-25	2126.00	0	2126.00	0	0	0	0	0	2126.00	100%
			Total	**40452.43**	**0**	**40452.43**	**0**	**0**	**0**	**0**	**0**	**40452.43**	**100%**

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

AUTHORIZED SIGNATORY

NAME: NIKET KHANDELWAL (GM - CORPORATE AFFAIRS)
CONTA(9981233000
E- MAIL: niket.khandelwal@hiragroup.com

N. G. LOGISTIC & QUALITY COAL PRIVATE LIMITED

(N. G. Coal Laboratories)

Office & Lab Address: Plot No. 13, GajananNagari, MIDC, Chandrapur-442406 (M.S.)
E-Mail:nggroup9@gmail.com, **Website:** www.ngcoallab.com, Mob. 8888347437, 9226497160

Reg. No.
U74909MH2023PTC413506

SAMPLE ANALYSIS REPORT			
Date:	31.08.2024	**Sample Receipt Date:**	29.08.2024
Test Report No.:	NGL/NA/2024-25/08/40/dated 31.08.2024		
Client Name & Address:	Alok Ferro Alloy Limited, Raipur, Chhattisgarh – 492003 (C.G.)		
Sample Description:	01 sample of Coal (250g approx. 212µ size)	**Ref No:**	N/A
Parameters Tested:	M, ASH, VM, FC, & GCV		

Sr. No.	Lab Sample ID	Customer Sample ID	Analysis Start date	Analysis Completion Date	Air dried basis (ADB)				
					M (%)	ASH (%)	VM (%)	FC (%)	GCV (kcal/kg)
1	NGL/NA/C/08/173/24	Aug 2024	29.08.2024	30.08.2024	6.51	54.05	18.95	20.49	2684

*M: Moisture, VM: Volatile Matter, GCV: Gross Calorific Value

Notes:

1. Total Moisture, Ash, Volatile Matter, Equilibrated Moisture tested as per IS 1350 (Part 1) 1984 RA 2019
2. GCV tested as per IS 1350 (Part 2) 2022
3. Samples shall be disposed of after one month from the date of issue of test report.
4. The result relates only to the items tested.
5. This test report shall not be reproduced except in full, without written approval from the laboratory.

Reviewed &Verified by
Authorized Signatory

Mr. Ganesh Mandal
(Technical Manager)

End of The Test Report

06

SOUTH EASTERN COALFIELDS LIMI
CIN:
Delivery Challan

साउथ ईस्टर्न कोलफील्ड्स
South Eastern Coalfields

Original for Buy
Duplicate for Transport
Triplicate for Suppli

Weighment Serial No. : 1000KBMKBB21103923730 Weighbridge No. : KBMK_WB3

Name & Address of Mine:
MANIKPUR OCM
SECL KORBA AREA,CG

GSTN:22AADCS2066E9ZL
State Code:22

Buyer:
ALOK FERRO ALLOYS LTD
PLOT NO. 458/1, 459

GSTN:22AACCA0569P1ZL
State Code:22

Invoice#:
38062502C2366407
Date:16-05-2024 Time:12:57:46
EPN#:
Mining Pass#:
Reverse Charge:No

DO No. & Date	DO Valid Upto	Delivery Point	DO Qty	Balance Qty to be lifted	Customer Code
3330043512 23-04-2024	06-06-2024	MANIKPUR	28.00MT Issue No:3330043512	0.00MT	2000002972 Prog.28.00

Destination(Consignee)			: EP 73535 PLOT NO. - 458/1,459 URLA INDUSTRIAL
OMPLEX,RAIPUR CG			
Specification of Goods			: COAL
HSN Code			: 27011200
Size			: ROM(-250MM)
Grade			: G13
Type Of Consumer			: NON-POWER
Gross Weight			: 41.66MT Date : 16-05-2024Time : 12:57:46
Tare Weight			: 13.66MT Date : 16-05-2024Time : 11:00:00
Net Weight			: 28.00MT
Rate			: 1006.00/ MT
1. Coal Value			: 28168.00
2. Sizing Charges	56.00	/ MT	: 1568.00
3. SILO Charges	0.00	/ MT	: 0.00
4. STC Charge	87.00	/ MT	: 2436.00
5. Dumping Charge	0.00	/ MT	: 0.00
6. Royalty	140.84	/ MT	: 3943.52
7. DMF	@ 30.00% of 6 above		: 1183.06
8. NMET	@ 2.00 % of 6 above		: 78.87
9. Stowing Excise Duty	0.00	/ MT	: 0.00
10. Terminal Tax	2.12	/ MT	: 59.36
11. Forest Cess	57.00	/ MT	: 1596.00
12. MP Sadak Tax	0.00	/ MT	: 0.00
13. CG Paryavaran & Vikas Upkar	22.50	/ MT	: 630.00
14. Pre Charges One	0.00	/ MT	: 0.00
15. Pre Charges Two	0.00	/ MT	: 0.00
16. Other Charges	60.00	/ MT	: 1680.00
Taxable Value(A) [1 to 16]			: 41342.81(Forty One Thousand Three Hundred Forty Tw
S.G.S.T	2.5% on (A)		: 1034.00(One Thousand Thirty Four)
C.G.S.T	2.5% on (A)		: 1034.00(One Thousand Thirty Four)
I.G.S.T	0.0% on (A)		: 0.00()
State Compensation cess	400.00/ MT		: 11200.00(Eleven Thousand Two Hundred)
17. post Charges One	0.00	/ MT	: 0.00
18. post Charges Two	0.00	/ MT	: 0.00
Gross Sale Value			: 54610.81(Fifty Four Thousand Six Hundred Ten)

ORIGINAL COPY

**Certified that particulars given above are true and correct.

Truck No.
CG12AZ7399

For-Manikpur pro

(Authorised Signat

(Verified By)

GOVERNMENT OF CHHATTISGARH
MINERAL RESOURCES DEPARTMENT
(Korba District)

Copy For : Lessee (प्रति : पटटाधारी)

FORM-I See Rule 4 (1) Mineral Transit Pass (for Mineral Concession Holders) प्ररूप -१ (नियम -४ (१) देखिये) खनिज अभिवहन पास (खनिज रियायत धारकों के लिए)	Transit Pass Number (अभिवहन पास क्रमांक) : TP_NO_14212031
District (जिला) Issue Date Of Mineral (खनिज प्रेषण का दिनांक) Issue Time Of Mineral (खनिज प्रेषण का समय)	Korba 16-05-2024 03:29:44 PM
E-Permit No. (ई - परमिट क्र.)	EP_NO_0073535
D.O Number/Date (If Applicable) (डी.ओ. क्रमांक / दिनांक (यदि लागु हो))	3330043512 23/04/2024
Vehicle Type (वाहन का प्रकार) Vehicle No(वाहन क्रमांक) Portal Registration No. of Vehicle(वाहन का पोर्टल पंजीकरण क्रमांक)	Haiwa CG12AZ7399 VP61375
License /Lessee's Name (अनुज्ञप्ति / पटटेधारी का नाम)	South Eastern Coalfileds Limited- Area : 1944.151(manikpur O.C.)-2171008913 (Within State)
License /Mining Area Details (अनुज्ञप्ति / खान क्षेत्र का विवरण) Village/Tehsil/District (ग्राम / तहसील / जिला)	Manikpur / Korba / Korba
Area in Hectare (रकबा हेक्टेयर में)	19**.15
Lease Validity Period (अनुज्ञप्ति / पटटा अवधि)	01/01/1958 to 10/12/2039 (81 Years)
Mineral Name (खनिज का नाम)	Coal
Category of the Mineral being transported (Mineral form vi.. lump/fines/steam/slack etc.) (परिवहन किये जा रहे खनिज की श्रेणी (खनिज प्रकार जैसे लम्प / फाईन्स / स्टीम / स्लैक / अन्य))	Non Coking-ROM
Grade (ग्रेड)	ROM- G13 (Above 3401 to 3700 GCV/Killo Calories)
Sale value of the Mineral (In Rs per Metric Tonne) (खनिज का विक्रय मूल्य (रु. प्रति मीट्रिक टन))	Rs 1006.00 / Metric Tonne
Tare Weight of the Vehicle (वाहन का टेयर वेट (मीट्रिक टन))	13.66 Metric Tonne
Gross Weight of the Vehicle (वाहन का ग्रॉस वेट (मीट्रिक टन))	41.66 Metric Tonne
Net Weight of Mineral being transported (परिवहन किये जा रहे खनिज की मात्रा (मीट्रिक टन))	28.00 Metric Tonne
Mineral Purchaser/ Recipient's Name (खनिज क्रेता / प्राप्तकर्ता का नाम)	ALOK FERRO ALLOYS LTD.-3230001347 (Within State)
Owner (Vehicle) Name & Contact Number (वाहन मालिक (परिवहनकर्ता) का नाम एवं दूरभाष क्रमांक)	ROOPNEET SINGH (7509930099)
Driver Name & Contact Number (वाहन चालक का नाम एवं दूरभाष क्रमांक)	rajkumar (9754838227)
Mode of Transportation (परिवहन पथ का प्रकार)	Road
Route (परिवहन मार्ग (व्हाया))	Urga
Destination (गंतव्य)	458/1 459 INDUSTRIAL AREA URLA RAIPUR,Raipur,Chhattisgarh -492003
Other (Remarks) (अन्य (टिप्पणियां))	Not Applicable

CHECK POST BARAIEN Manikpur Road Sales 16/05/24

This is a system generated e-Transit Pass. So physical signature is not required. Generated Time : 16-05-2024 03:29:44 PM

GAYATRI COAL TRANSPORT & SUPPLIER

FLEET OWNERS & TRANSPORT CONTRACTOR

Near R.B. Traders, Stadium Road, T.P. Nagar, KORBA (C.G.)

S.No.: GCT/ 1546

Book No. :

Date : 16/05/24

From : MCP

Consignor : Rajpur

Truck No : CG12A2739

DESCRIPTION	WEIGHT	ADVANCE	TO PAY
Rom. (2SV)	41.660 13.660 28000		

DO NO. : 43512 GATE PASS NO. : 1421203

Owner's Name ..... Roop Sahu .....

Mobile No. ..... Date .....

Driver's Name .....

Payment Copy
पेमेंट कॉपी

Authorised Signatory

नोट :- कृपया पर्ची का भाड़ा पर्ची दिनांक के 1 माह के भीतर ले जावें, अन्यथा इसका भुगतान नही होगा।

ALOK FERRO ALLOYS LTD
In Coming Material
TIME 11.25 DATE 17/5/24
SECURITY OFFICER SIGNATURE

ALOK FERRO ALLOYS LTD.
PLOT NO.458/1,459 URLA INDUSTRIAL AREA RAIPUR CG
WEIGHMENT SLIP

RST No. 5351

Vehicle No. CG12AZ/7309

		Gross (Kg)	42310
		Tare (Kg)	13940
		Net (Kg)	28370
		Transaction Time	18/05/2024 12:01 PM
Gross Time	17/05/2024 11:43 AM	Tare Time	18/05/2024 12:00 PM
Operator	Operator Gaurav	Remarks Sign	Gaurav

Driver :
Officer :
Depositor : 370 Kg. Ext.
No responsibility of weight once the truck leaves weighbridge.

ALOK FERRO ALLOYS LTD
In Coming Material
TIME 12:25 DATE 17/5/24
SECURITY OFFICER SIGNATURE

18/05/24
12:30

साउथ ईस्टर्न कोलफील्ड्स
South Eastern Coalfields

SOUTH EASTERN COALFIELDS LIMITED
CIN:
Delivery Challan

Original fo
Duplicate for Tran
Triplicate for S

Weighment Serial No. : 1000KBMKBB21103924051 Weighbridge No. : KB

Name & Address of Mine: MANIKPUR OCM SECL KORBA AREA,CG	Buyer: ALOK FERRO ALLOYS LTD PLOT NO. 458/1, 459	Invoice#: 38062502C2366441 Date:16-05-2024 Time:16:
GSTN:22AADCS2066E9ZL State Code:22	GSTN:22AACCA0569P1ZL State Code:22	EPN#: Mining Pass#: Reverse Charge:No

DO No. & Date	DO Valid Upto	Delivery Point	DO Qty	Balance Qty to be lifted	Custome
3330043513 23-04-2024	06-06-2024	MANIKPUR	28.00MT Issue No:3330043513	0.00MT	20000 Prog.

Destination(Consignee)			: EP 73537 PLOT NO. - 458/1,459 URLA INDU	
OMPLEX,RAIPUR CG				
Specification of Goods			: COAL	
HSN Code			: 27011200	
Size			: ROM(-250MM)	
Grade			: G13	
Type Of Consumer			: NON-POWER	
Gross Weight			: 40.91MT Date : 16-05-2024Time : 16:1	
Tare Weight			: 12.91MT Date : 16-05-2024Time : 13:2	
Net Weight			: 28.00MT	
Rate			: 1006.00/ MT	
1. Coal Value			: 28168.00	
2. Sizing Charges		56.00 / MT	: 1568.00	
3. SILO Charges		0.00 / MT	: 0.00	
4. STC Charge		87.00 / MT	: 2436.00	
5. Dumping Charge		0.00 / MT	: 0.00	
6. Royalty		140.84 / MT	: 3943.52	
7. DMF	@ 30.00% of 6 above		: 1183.06	
8. NMET	@ 2.00 % of 6 above		: 78.87	
9. Stowing Excise Duty		0.00 / MT	: 0.00	
10. Terminal Tax		2.12 / MT	: 59.36	
11. Forest Cess		57.00 / MT	: 1596.00	
12. MP Sadak Tax		0.00 / MT	: 0.00	
13. CG Paryavaran & Vikas Upkar		22.50 / MT	: 630.00	
14. Pre Charges One		0.00 / MT	: 0.00	
15. Pre Charges Two		0.00 / MT	: 0.00	ORIGINAL
16. Other Charges		60.00 / MT	: 1680.00	
Taxable Value(A) [1 to 16]			: 41342.81(Forty One Thousand Three Hundred For	
S.G.S.T	2.5% on (A)		: 1034.00(One Thousand Thirty Four)	
C.G.S.T	2.5% on (A)		: 1034.00(One Thousand Thirty Four)	
I.G.S.T	0.0% on (A)		: 0.00()	
State Compensation cess	400.00/ MT		: 11200.00(Eleven Thousand Two Hundred)	
17. post Charges One		0.00 / MT	: 0.00	
18. post Charges Two		0.00 / MT	: 0.00	
Gross Sale Value			: 54610.81(Fifty Four Thousand Six Hundred Ten)	

**Certified that particulars given above are true and correct. Truck No. CG12BA9199 For Ma

(Authorised S

(Verified By)

GOVERNMENT OF CHHATTISGARH
MINERAL RESOURCES DEPARTMENT
(Korba District)

Copy For : Purchaser / Consignee (प्रति : क्रेता / परेषिती(माल पानेवाला))

FORM-1 See Rule 4 (1) Mineral Transit Pass (for Mineral Concession Holders) प्ररूप -१ (नियम -४ (१) देखिये) खनिज अभिवहन पास (खनिज रियायत धारकों के लिए)	Transit Pass Number (अभिवहन पास क्रमांक) : TP_NO_14212900
District (जिला) Issue Date Of Mineral (खनिज प्रेषण का दिनांक) Issue Time Of Mineral (खनिज प्रेषण का समय)	Korba 16-05-2024 04:40:58 PM
E-Permit No. (ई - परमिट क्रं.)	EP_NO_0073537
D.O Number/Date (If Applicable) (डी.ओ. क्रमांक / दिनांक (यदि लागु हो))	3330043513 23/04/2024
Vehicle Type (वाहन का प्रकार) Vehicle No(वाहन क्रमांक) Portal Registration No. of Vehicle(वाहन का पोर्टल पंजीकरण क्रमांक)	Truck CG12BA9199 VP125674
License /Lessee's Name (अनुज्ञप्ति / पटटेधारी का नाम)	South Eastern Coalfileds Limited- Area : 1944.151(manikpur O.C.)-2171008913 (Within State)
License/Mining Area Details (अनुज्ञप्ति/ खान क्षेत्र का विवरण) Village/Tehsil/District (ग्राम / तहसील / जिला)	Manikpur / Korba / Korba
Area in Hectare (रकबा हेक्टेयर में)	1944.15
Lease Validity Period (अनुज्ञप्ति / पटटा अवधि)	01/01/1958 to 10/12/2039 (81 Years)
Mineral Name (खनिज का नाम)	Coal
Category of the Mineral being transported (Mineral form viz. lump/fines/steam/slack etc.) (परिवहन किये जा रहे खनिज की श्रेणी (खनिज प्रकार जैसे लम्प / फाईन्स / स्टीम / स्लैक / अन्य))	Non Coking-ROM
Grade (ग्रेड)	ROM- G13 (Above 3401 to 3700 GCV/Killo Calories)
Sale value of the Mineral (In Rs per Metric Tonne) (खनिज का विक्रय मूल्य (रु. प्रति मीट्रिक टन))	Rs 1006.00 / Metric Tonne
Tare Weight of the Vehicle (वाहन का टेयर वेट (मीट्रिक टन))	12.91 Metric Tonne
Gross Weight of the Vehicle (वाहन का ग्रॉस वेट (मीट्रिक टन))	40.91 Metric Tonne
Net Weight of Mineral being transported (परिवहन किये जा रहे खनिज की भार (मीट्रिक टन))	28.00 Metric Tonne
Mineral Purchaser/ Recipient's Name (खनिज क्रेता / प्राप्तकर्ता का नाम)	ALOK FERRO ALLOYS LTD.-3230001347 (Within State)
Owner (Transporter) Name & Contact Number (वाहन मालिक (परिवहनकर्ता) का नाम एवं दूरभाष क्रमांक)	ROOPNEET SINGH (7509930099)
Driver Name & Contact Number (वाहन चालक का नाम एवं दूरभाष क्रमांक)	krishna kumar (9425286632)
Mode of Transportation (परिवहन पथ का प्रकार)	Road
Route (परिवहन मार्ग (व्हाया))	Durga
Destination (गंतव्य)	458/1 459 INDUSTRIAL AREA URLA RAIPUR,Raipur,Chhattisgarh -492003
Other (Remarks) (अन्य (टिप्पणियां))	Not Applicable

This is a system generated e-Transit Pass. So physical signature is not required. Generated Time : 16-05-2024 04:40:58 PM

CHECK POST BARRIER Manikpur Road Sales

16/05/24

16 MAY 2024

GOVT. OF CHHATTISGARH
MINING CHECK POST
SEMIPALI, DISTT.-KORBA (C. G.)

16 MAY 2024

Register ..... Pas. No. .....
Serial No. ..... Time ..... AM/PM
Sign. C/P Incharge 7:00

Mob. : 9907967433

GAYATRI COAL TRANSPORT & SUPPLIER

FLEET OWNERS & TRANSPORT CONTRACTOR

Near R.B. Traders, Stadium Road, T.P. Nagar, KORBA (C.G.)

Book No. :

S.No.: GCT/ 1547

From : MKP

Date : 16/05/24

Consignor : Rajpur

Truck No. : CG12BA9199

DESCRIPTION	WEIGHT	ADVANCE	TO PAY
Rom-(-250)	40.910 12.910 28000		

DO NO. : 43513

GATE PASS NO. : 14212900

Owner's Name.....

Mobile No. ..... Date .....

Driver's Name .....

Payment Copy
पेमेंट कॉपी

Authorised Signatory

नोट :- कृपया पर्ची का भाड़ा पर्ची दिनांक के 1 माह के भीतर ले जावें, अन्यथा इसका भुगतान नही होगा।

ALOK FERRO ALLOYS MFD
In Coming Material
TIME 11.25 DATE 17/5/24
SECURITY OFFICER SIGNATURE

ALOK FERRO ALLOYS LTD.

PLOT NO. 458/1.459 URLA INDUSTRIAL AREA RAIPUR CG

WEIGHMENT SLIP

RST No.. 5353

Vehicle No. CG12BA/9199

		Gross (Kg)	41410
		Tare (Kg)	13110
		Net (Kg)	**28300**
		Transaction Time	18/05/2024 12:07 PM
Gross Time	17/05/2024 11:49 AM	Tare Time	18/05/2024 12:06 PM
		Remarks	
Operator	Operator Gaurav	Sign. Gaurav	

Driver :

Officer :

Depositor : 300 Kg. Ext.

No responsibility of weight once the truck leaves weighbridge.

ALOK FERRO ALLOYS LTD
In Coming Material
TIME 11.35 DATE 17/05/24
SECURITY OFFICER SIGNATURE

OUT
12.30
dt 18/05/24

03

SOUTH EASTERN COALFIELDS LIMITED
GEVRA AREA
GEV_WB11
1000GEVBB050013077859

Invoice No : 51012511C2318568 Gate Pass :

Date : 16-05-2024 Road Delivery Challan Time : 22:59:53

DO No. : 3330043108 DO Date. : 04-04-2024 Validity Date. : 18-05-2024
Size : ROM(-250MM) Delivery : OD Release : NON-POWER
Allocated : 308.00MT Balance : 119.57MT EPN# : 0072606
Truck No : CG10BS9077
Cust Code : 2000002972 Cust Name : ALOK FERRO ALLOYS LTD
Trans Code : UNK Trans Name : UNKNOWN
Grade Code : G11 Grade Name : G11
Prod. Code : Prod. Name :
From Code : GEVRA From Name : Gevra
To Code : RAIPUR VIA PALI To Name : RAIPUR VIA PALI
Gross : 53.80 Date : 16-05-2024 Time : 22:59:51
Tare : 15.62 Date : 16-05-2024
Net : 38.18 Gross Sale Value : 101935.78

South Eastern Coalfields Limited

Signed By Checked By

2892122

I-011-25065902 E-contact@whaleindia.com

SECL GEVRA PROJECT
BOOM BARRIER NO - 02
DOCUMENT VERIFIED GETE -OUT
DATE 17.05.24
TIME 01:32
SIGN CISF

GOVERNMENT OF CHHATTISGARH
MINERAL RESOURCES DEPARTMENT
(Korba District)

Copy For : Purchaser / Consignee (प्रति : क्रेता / परेषिती(माल यानेवाला))

FORM-I See Rule 4 (1) Mineral Transit Pass (for Mineral Concession Holders) प्ररूप -१ (नियम -४ (१) देखिये) खनिज अभिवहन पास (खनिज रियायत धारकों के लिए)	Transit Pass Number (अभिवहन पास क्रमांक) : TP_NO_14216015
District (जिला) Issue Date Of Mineral (खनिज प्रेषण का दिनांक) Issue Time Of Mineral (खनिज प्रेषण का समय)	Korba 16-05-2024 11:07:58 PM
E-Permit No. (ई - परमिट क्र.)	EP_NO_0072606
D.O Number/Date (If Applicable) (डी.ओ. क्रमांक / दिनांक (यदि लागु हो))	3330043108 04/04/2024
Vehicle Type (वाहन का प्रकार) Vehicle No(वाहन क्रमांक) Portal Registration No. of Vehicle(वाहन का पोर्टल पंजीकरण क्रमांक)	Trailer CG10BS9077 VP142555
Licensee /Lessee's Name (अनुज्ञप्ति / पटटेधारी का नाम)	South Eastern Coalfileds Limited-2171008902 (Within State)
Licensee/Mining Area Details (अनुज्ञप्ति/ खान क्षेत्र का विवरण) Village/Tehsil/District (ग्राम / तहसील / जिला)	DIPKA / Katghora / Korba
Area in Hectare (रकबा हेक्टेयर में)	4782.00
Lease Validity Period (अनुज्ञप्ति / पटटा अवधि)	19/10/1981 to 28/09/2029 (48 Years)
Mineral Name (खनिज का नाम)	Coal
Category of the Mineral being transported (Mineral form viz. lumps/fines/steam/slack etc.) (परिवहन किये जा रहे खनिज की श्रेणी (खनिज प्रकार जैसे लम्प / फाईन्स / स्टीम / स्लैक / अन्य))	Non Coking-ROM
Grade (ग्रेड)	ROM- G11 (Above 4001 to 4300 GCV/Kilo Calories)
Sale value of the Mineral (In Rs per Metric Tonne) (खनिज का विक्रय मूल्य (रु. प्रति मीट्रिक टन))	Rs 1616.00 / Metric Tonne
Tare Weight of the Vehicle (वाहन का टेयर वेट (मीट्रिक टन))	15.62 Metric Tonne
Gross Weight of the Vehicle (वाहन का ग्रॉस वेट (मीट्रिक टन))	53.80 Metric Tonne
Net Weight of Mineral being transported (परिवहन किये जा रहे खनिज की मात्रा (मीट्रिक टन))	38.18 Metric Tonne
Mineral Purchaser/ Recipient's Name (खनिज क्रेता / प्राप्तकर्ता का नाम)	ALOK FERRO ALLOYS LTD.-3230001347 (Within State)
Owner (Transporter) Name & Contact Number (वाहन मालिक (परिवहनकर्ता) का नाम एवं दूरभाष क्रमांक)	DIPAK KUMAR SAHU (7999542153)
Driver Name & Contact Number (वाहन चालक का नाम एवं दूरभाष क्रमांक)	RAVI (7415897416)
Mode of Transportation (परिवहन पथ का प्रकार)	Road
Route (परिवहन मार्ग (व्हाया))	N/A
Destination (गंतव्य)	458/1 459 INDUSTRIAL AREA URLA RAIPUR,Raipur,Chhattisgarh -492003
Other (Remarks) (अन्य (टिप्पणियां))	Not Applicable

(This is a system generated e-Transit-Pass, So physical signature is not required. Generated Time : 16-05-2024 11:07:58 PM

MINING CHECK POST
(C.G.)
17 MAY 2024
Time
AM/PM

Mob. : 9907967433

GAYATRI COAL TRANSPORT & SUPPLIER

FLEET OWNERS & TRANSPORT CONTRACTOR

Near R.B. Traders, Stadium Road, T.P. Nagar, KORBA (C.G.)

Book No. :

S.No.: GCT/ 4633

From : Gevra D.

Date : 16/5/24

Consignor : Alok Ispat Raipur

Truck No. : CG 10 BS 9077

DESCRIPTION	WEIGHT	ADVANCE	TO PAY
DO No. 42108 TP. 14216015	53.800 15.620 38.180	6000/-	13000/- (अंतिम) DP

DO NO. : _____ GATE PASS NO. : _____

Owner's Name.....

Mobile No. ..... Date .....

Driver's Name .....

Payment Copy
पेमेंट कॉपी

Authorised Signatory

:- कृपया पर्ची का भाड़ा पर्ची दिनांक के 1 माह के भीतर ले जावें, अन्यथा इसका भुगतान नही होगा।

ALOK FERRO ALLOYS LTD
In Coming Material
TIME 17.25 DATE 17/05/24
SECURITY OFFICER
SIGNATURE

ALOK FERRO ALLOYS LTD.

PLOT NO. 458/1,459 URLA INDUSTRIAL AREA RAIPUR CG

WEIGHMENT SLIP

RST No. 5371

Vehicle No. CG10BS/9077

	0	Gross (Kg)	54180
	0	Tare (Kg)	15730
	0	Net (Kg)	**38450**
		Transaction Time	17/05/2024 08:14 PM
Gross Time	17/05/2024 05:37 PM	Tare Time	17/05/2024 08:14 PM
		Remarks	
Operator	Operator SHYAM	Sign	

Driver : Officer : Depositor : 27 ON EX 7.

No responsibility of weight once the truck leaves weighbridge.

Out
20:50

ALOK FERRO ALLOYS LTD
In Coming Material
TIME 17:25 DATE 17/05/2024
SECURITY OFFICER SIGNATURE

ALOK FERRO ALLOYS LIMITED(POWER DIVISION).

PLOT NO 458/1, 459, Urla Industrial Complex Urla, Raipur-492003 (C.G.) Phone :
492003CHHATTISGARHINDIA
Phone : 0771-4082850 / 60 Telefax : 0771-4082880 Email : admin@afal.co.in

Purchase Voucher

Voucher No. : **POWER\24-25\PV\0576**
Date : **25/06/2024**

Finance Book : **POWER - TRANSACTION FB**

	Particulars	Debit Amount Rs.	Debit Amount P.	Credit Amount Rs.	Credit Amount P.
By	R/M PURCHASE OFFSET A/C	12	07		
By	GST INPUT A/C (CENTRAL GST)	33	63		
By	GST INPUT A/C (STATE GST)	33	63		
By	R/M DE OILED CLAY PROVISION A/C	1356	81		
To	PARAS VANASPATI PVT LTD.			1412	00
To	R/M DE OILED CLAY			12	07
To	CLOSING STOCK OF DE OILED CLAY			12	07

POWER

Narration : Being Invoice (Material) received for Purchase Of . DE-OILED CLAY 17.045000 M.T. 1.00 ,DE-OILED CLAY 15.420000 M.T. 0.98 ,DE-OILED CLAY 22.720000 M.T. 1.00 ,DE-OILED CLAY 17.385000 M.T. 1.00 ,DE-OILED CLAY 16.885000 M.T. 1.00 ,DE-OILED CLAY 23.455000 M.T. 1.00 ,DE-OILED CLAY 22.630000 M.T. 1.00 ,DE-OILED CLAY 16.705000 M.T. 1.00 ,DE-OILED CLAY 18.560000 M.T. 1.00 ,DE-OILED CLAY 24.020000 M.T. 1.00 ,DE-OILED CLAY 18.920000 M.T. 1.00 ,DE-OILED CLAY 25.125000 M.T. 1.00 ,DE-OILED CLAY 17.990000 M.T. 1.00 ,DE-OILED CLAY 18.750000 M.T. 1.00 ,DE-OILED CLAY 24.610000 M.T. 1.00 ,DE-OILED CLAY 25.295000 M.T. 1.00 ,DE-OILED CLAY 16.745000 M.T. 1.00 ,DE-OILED CLAY 17.840000 M.T. 1.00 ,DE-OILED CLAY 18.255000 M.T. 1.00 ,DE-OILED CLAY 25.155000 M.T. 1.00 ,DE-OILED CLAY 16.695000 M.T. 1.00 ,DE-OILED CLAY 18.155000 M.T. 1.00 ,DE-OILED CLAY 23.120000 M.T. 1.00 ,DE-OILED CLAY 16.080000 M.T. 1.00 ,DE-OILED CLAY 18.415000 M.T. 1.00 ,DE-OILED CLAY 22.465000 M.T. 1.00 ,DE-OILED CLAY 16.625000 M.T. 1.00 ,DE-OILED CLAY 24.720000 M.T. 1.00 ,DE-OILED CLAY 17.685000 M.T. 1.00 ,DE-OILED CLAY 23.815000 M.T. 1.00 ,DE-OILED CLAY 18.965000 M.T. 1.00 ,DE-OILED CLAY 16.760000 M.T. 1.00 ,DE-OILED CLAY 22.535000 M.T. 1.00 ,DE-OILED CLAY 16.975000 M.T. 1.00 ,DE-OILED CLAY 16.155000 M.T. 1.00 ,DE-OILED CLAY 24.155000 M.T. 1.00 ,DE-OILED CLAY 18.280000 M.T. 1.00 ,DE-OILED CLAY 16.535000 M.T. 1.00 ,DE-OILED CLAY 23.850000 M.T. 1.00 ,DE-OILED CLAY 16.950000 M.T. 1.00 ,DE-OILED CLAY 17.960000 M.T. 1.00 ,DE-OILED CLAY 24.010000 M.T. 1.00 ,DE-OILED CLAY 16.560000 M.T. 1.00 ,DE-OILED CLAY 18.605000 M.T. 1.00 ,DE-OILED CLAY 22.870000 M.T. 1.00 ,DE-OILED CLAY 18.145000 M.T. 1.00 ,DE-OILED CLAY 17.945000 M.T. 1.00 ,DE-OILED CLAY 15.770000 M.T. 1.00 ,DE-OILED CLAY 16.115000 M.T. 1.00 ,DE-OILED CLAY 23.880000 M.T. 1.00 ,DE-OILED CLAY 17.745000 M.T. 1.00 ,DE-OILED CLAY 17.100000 M.T. 1.00 ,DE-OILED CLAY 24.655000 M.T. 1.00 ,DE-OILED CLAY 17.955000 M.T. 1.00 ,DE-OILED CLAY 17.030000 M.T. 1.00 ,DE-OILED CLAY 23.220000 M.T. 1.00 ,DE-OILED CLAY 15.525000 M.T. 1.00 ,DE-OILED CLAY 23.570000 M.T. 1.00 ,DE-OILED CLAY 18.020000 M.T. 1.00 ,DE-OILED CLAY 16.360000 M.T. 1.00 ,DE-OILED CLAY 17.175000 M.T. 1.00 ,DE-OILED CLAY 16.910000 M.T. 1.00 ,DE-OILED CLAY 22.930000 M.T. 1.00 ,DE-OILED CLAY 24.845000 M.T. 1.00 ,DE-OILED CLAY 16.005000 M.T. 1.00 ,DE-OILED CLAY 16.385000 M.T. 1.00 ,. Rupees @ Exch.Rate 1.000000 from PARAS VANASPATI PVT LTD. vide Invoice No. SPDOC/2 dt. 20/06/2024 against PO No. POWER\24-25\PO(RM)\0012 ,GRN No. POWER\24-25\GRN(RM)\1368 ,POWER\24-25\GRN(RM)\1366 ,POWER\24-25\GRN(RM)\1363 ,POWER\24-25\GRN(RM)\1369 ,POWER\24-25\GRN(RM)\1364 ,POWER\24-25\GRN(RM)\1361 ,POWER\24-25\GRN(RM)\1367 ,POWER\24-25\GRN(RM)\1365 ,POWER\24-25\GRN(RM)\1362 ,POWER\24-25\GRN(RM)\1378 ,POWER\24-25\GRN(RM)\1371 ,POWER\24-25\GRN(RM)\1373 ,POWER\24-25\GRN(RM)\1370 ,POWER\24-25\GRN(RM)\1375 ,POWER\24-25\GRN(RM)\1377 ,POWER\24-25\GRN(RM)\1372 ,POWER\24-25\GRN(RM)\1374 ,POWER\24-25\GRN(RM)\1376 ,POWER\24-25\GRN(RM)\13

ALOK FERRO ALLOYS LIMITED(POWER DIVISION).

PLOT NO 458/1, 459,Urla Industrial Complex Urla,Raipur-492003 (C.G.)Pincode : 492003CHHATTISGARHINDIA
Phone : 0771-4082850 / 60 Telefax : 0771-4082880 Email : admin@afal.co.in

Purchase Invoice

PARAS VANASPATI PVT LTD.
URLA INDUSTRIAL AREA,,RAIPUR,CHHATTISGARH,INDIA
Phone : 9300988000

Bill No. : POWER\24-25\PB(RM)\0500
Date : 25/06/2024
Party Bill No. : SPDOC/2
Party Bill Date : 20/06/2024
Party Bill Amt. : 1345.00

Sl. No.	Challan No.	Challan Date	GRN No.	GRN Date/ Creat. Date/ Auth. Date	PO/ WO No.	PO/ WO Date
1	1	03/06/2024	POWER\24-25\GRN(RM)\1361	03/06/2024 04/06/2024 04/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
2	10	04/06/2024	POWER\24-25\GRN(RM)\1370	04/06/2024 05/06/2024 05/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
3	11	04/06/2024	POWER\24-25\GRN(RM)\1371	04/06/2024 05/06/2024 05/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
4	12	04/06/2024	POWER\24-25\GRN(RM)\1372	04/06/2024 05/06/2024 05/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
5	13	04/06/2024	POWER\24-25\GRN(RM)\1373	04/06/2024 05/06/2024 05/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
6	14	04/06/2024	POWER\24-25\GRN(RM)\1374	04/06/2024 05/06/2024 05/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024

PARAS VANASPATI PVT LTD.
URLA INDUSTRIAL AREA,.RAIPUR,CHHATTISGARH,INDIA
Phone : 9300988000

Bill No. : POWER\24-25\PB(RM)\0500
Date : 25/06/2024
Party Bill No. : SPDOC/2
Party Bill Date : 20/06/2024
Party Bill Amt. : 1345.00

Sl. No.	Challan No.	Challan Date	GRN No.	GRN Date/ Creat. Date/ Auth. Date	PO/ WO No.	PO/ WO Date
7	15	04/06/2024	POWER\24-25\GRN(RM)\1375	04/06/2024 05/06/2024 05/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
8	16	04/06/2024	POWER\24-25\GRN(RM)\1376	04/06/2024 05/06/2024 05/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
9	17	04/06/2024	POWER\24-25\GRN(RM)\1377	04/06/2024 05/06/2024 05/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
10	18	04/06/2024	POWER\24-25\GRN(RM)\1378	04/06/2024 05/06/2024 05/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
11	19	05/06/2024	POWER\24-25\GRN(RM)\1379	05/06/2024 06/06/2024 06/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
12	2	03/06/2024	POWER\24-25\GRN(RM)\1362	03/06/2024 04/06/2024 04/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024

Sl. No.	Challan No.	Challan Date	GRN No.	GRN Date/ Creat. Date/ Auth. Date	PO/ WO No.	PO/ WO Date
13	20	05/06/2024	POWER\24-25\GRN(RM)\1380	05/06/2024 06/06/2024 06/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
14	21	05/06/2024	POWER\24-25\GRN(RM)\1381	05/06/2024 06/06/2024 06/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
15	22	05/06/2024	POWER\24-25\GRN(RM)\1382	05/06/2024 06/06/2024 06/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
16	23	05/06/2024	POWER\24-25\GRN(RM)\1383	05/06/2024 06/06/2024 06/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
17	24	05/06/2024	POWER\24-25\GRN(RM)\1384	05/06/2024 06/06/2024 06/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
18	26	05/06/2024	POWER\24-25\GRN(RM)\1386	05/06/2024 06/06/2024 06/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
19	27	05/06/2024	POWER\24-25\GRN(RM)\1387	05/06/2024 06/06/2024 06/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024

Sl. No.	Challan No.	Challan Date	GRN No.	GRN Date/ Creat. Date/ Auth. Date	PO/ WO No.	PO/ WO Date
20	28	06/06/2024	POWER\24-25\GRN(RM)\1388	06/06/2024 07/06/2024 07/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
21	29	06/06/2024	POWER\24-25\GRN(RM)\1389	06/06/2024 07/06/2024 07/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
22	3	03/06/2024	POWER\24-25\GRN(RM)\1363	03/06/2024 04/06/2024 04/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
23	30	06/06/2024	POWER\24-25\GRN(RM)\1390	06/06/2024 07/06/2024 07/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
24	31	06/06/2024	POWER\24-25\GRN(RM)\1391	06/06/2024 07/06/2024 07/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
25	32	06/06/2024	POWER\24-25\GRN(RM)\1392	06/06/2024 07/06/2024 07/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
26	33	06/06/2024	POWER\24-25\GRN(RM)\1393	06/06/2024 07/06/2024 07/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024

Sl. No.	Challan No.	Challan Date	GRN No.	GRN Date/ Creat. Date/ Auth. Date	PO/ WO No.	PO/ WO Date
27	34	06/06/2024	POWER\24-25\GRN(RM)\1394	06/06/2024 07/06/2024 07/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
28	35	06/06/2024	POWER\24-25\GRN(RM)\1395	06/06/2024 07/06/2024 07/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
29	36	06/06/2024	POWER\24-25\GRN(RM)\1396	06/06/2024 07/06/2024 07/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
30	37	07/06/2024	POWER\24-25\GRN(RM)\1399	07/06/2024 08/06/2024 08/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
31	38	07/06/2024	POWER\24-25\GRN(RM)\1397	07/06/2024 08/06/2024 08/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
32	39	07/06/2024	POWER\24-25\GRN(RM)\1398	07/06/2024 08/06/2024 08/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
33	4	03/06/2024	POWER\24-25\GRN(RM)\1364	03/06/2024 04/06/2024 04/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024

Sl. No.	Challan No.	Challan Date	GRN No.	GRN Date/ Creat. Date/ Auth. Date	PO/ WO No.	PO/ WO Date
34	40	07/06/2024	POWER\24-25\GRN(RM)\1400	07/06/2024 08/06/2024 08/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
35	41	07/06/2024	POWER\24-25\GRN(RM)\1401	07/06/2024 08/06/2024 08/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
36	42	07/06/2024	POWER\24-25\GRN(RM)\1402	07/06/2024 08/06/2024 08/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
37	43	07/06/2024	POWER\24-25\GRN(RM)\1403	07/06/2024 08/06/2024 08/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
38	44	07/06/2024	POWER\24-25\GRN(RM)\1404	07/06/2024 08/06/2024 08/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
39	45	07/06/2024	POWER\24-25\GRN(RM)\1405	07/06/2024 08/06/2024 08/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
40	46	07/06/2024	POWER\24-25\GRN(RM)\1406	07/06/2024 08/06/2024 08/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024

Sl. No.	Challan No.	Challan Date	GRN No.	GRN Date/ Creat. Date/ Auth. Date	PO/ WO No.	PO/ WO Date
41	47	08/06/2024	POWER\24-25\GRN(RM)\1409	08/06/2024 10/06/2024 10/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
42	48	08/06/2024	POWER\24-25\GRN(RM)\1408	08/06/2024 10/06/2024 10/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
43	49	08/06/2024	POWER\24-25\GRN(RM)\1407	08/06/2024 10/06/2024 10/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
44	5	03/06/2024	POWER\24-25\GRN(RM)\1365	03/06/2024 04/06/2024 04/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
45	50	09/06/2024	POWER\24-25\GRN(RM)\1410	09/06/2024 10/06/2024 10/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
46	51	09/06/2024	POWER\24-25\GRN(RM)\1412	09/06/2024 17/06/2024 17/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
47	52	09/06/2024	POWER\24-25\GRN(RM)\1413	09/06/2024 17/06/2024 17/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024

Sl. No.	Challan No.	Challan Date	GRN No.	GRN Date/ Creat. Date/ Auth. Date	PO/ WO No.	PO/ WO Date
48	53	09/06/2024	POWER\24-25\GRN(RM)\1414	09/06/2024 17/06/2024 17/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
49	54	09/06/2024	POWER\24-25\GRN(RM)\1415	09/06/2024 17/06/2024 17/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
50	55	09/06/2024	POWER\24-25\GRN(RM)\1416	09/06/2024 17/06/2024 17/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
51	5584	05/06/2024	POWER\24-25\GRN(RM)\1385	05/06/2024 06/06/2024 06/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
52	56	09/06/2024	POWER\24-25\GRN(RM)\1411	09/06/2024 10/06/2024 10/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
53	57	09/06/2024	POWER\24-25\GRN(RM)\1417	09/06/2024 17/06/2024 17/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
54	58	10/06/2024	POWER\24-25\GRN(RM)\1419	10/06/2024 18/06/2024 18/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024

Sl. No.	Challan No.	Challan Date	GRN No.	GRN Date/ Creat. Date/ Auth. Date	PO/ WO No.	PO/ WO Date
55	59	10/06/2024	POWER\24-25\GRN(RM)\1418	10/06/2024 18/06/2024 18/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
56	6	03/06/2024	POWER\24-25\GRN(RM)\1366	03/06/2024 04/06/2024 04/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
57	60	10/06/2024	POWER\24-25\GRN(RM)\1420	10/06/2024 18/06/2024 18/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
58	61	10/06/2024	POWER\24-25\GRN(RM)\1421	10/06/2024 18/06/2024 18/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
59	62	10/06/2024	POWER\24-25\GRN(RM)\1422	10/06/2024 18/06/2024 18/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
60	63	10/06/2024	POWER\24-25\GRN(RM)\1423	10/06/2024 18/06/2024 18/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
61	64	10/06/2024	POWER\24-25\GRN(RM)\1426	10/06/2024 18/06/2024 18/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024

Sl. No.	Challan No.	Challan Date	GRN No.	GRN Date/ Creat. Date/ Auth. Date	PO/ WO No.	PO/ WO Date
62	65	10/06/2024	POWER\24-25\GRN(RM)\1424	10/06/2024 18/06/2024 18/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
63	66	10/06/2024	POWER\24-25\GRN(RM)\1425	10/06/2024 18/06/2024 18/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
64	67	10/06/2024	POWER\24-25\GRN(RM)\1427	11/06/2024 18/06/2024 18/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
65	68	10/06/2024	POWER\24-25\GRN(RM)\1428	11/06/2024 18/06/2024 18/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
66	69	11/06/2024	POWER\24-25\GRN(RM)\1429	11/06/2024 18/06/2024 18/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
67	7	03/06/2024	POWER\24-25\GRN(RM)\1367	03/06/2024 04/06/2024 04/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024
68	8	03/06/2024	POWER\24-25\GRN(RM)\1368	03/06/2024 04/06/2024 04/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024

Sl. No.	Challan No.	Challan Date	GRN No.	GRN Date/ Creat. Date/ Auth. Date	PO/ WO No.	PO/ WO Date
69	9	03/06/2024	POWER\24-25\GRN(RM)\1369	03/06/2024 04/06/2024 04/06/2024	POWER\24-25\PO(RM)\0012	06/05/2024

Due Date : 20/06/2024

CostCenter : POWER PLANT

Basic Amount	1345.00
CGST @ 2.5%	33.63
SGST @ 2.5%	33.63
ROUND OFF(-)	0.26
Total	**1412.00**

Rs. In Words : **One Thousand Four Hundred Twelve Only**

Passed Bill Amount **1412.00**

For,**ALOK FERRO ALLOYS LIMITED(POWER DIVISION).**

PRIYANKA MISHRA

(Prepared By)

(Checked By)

PRIYANKA MISHRA

(Approved By)

	Account Name	Ref No.	Ref. Date	Amount (in Rs.)	DueDate				
	PARAS VANASPATI PVT LTD.	SPDOC/2	20/06/2024	1412.00 Cr.	20/06/2024				
Rupees : One Thousand Four Hundred Thirty-Six And Fourteen Paise Only						1436	14	1436	14

PRIYANKA MISHRA
(Prepared by)

PRIYANKA MISHRA
(Authorized by)

(Approved by)

(Authorized Signatory)

TAX INVOICE

Paras Vanaspati Pvt Ltd

CIN- U15141CT1992PTC006908 Office: 21/360, Ganjpara, Raipur (C.G.) - 492001.
Factory: Plot No. 723,725,727, Sector B Industrial Complex, Urla,Raipur (C.G.) - 493221.
Phone : (O)+91-9111108584 | +91-9111105650 Mobile: (F) +91-9111103200 | +91-9111104600
E-Mail : parasvanaspati@gmail.com Website : www.parasvanaspati.com
GSTIN : 22AABCP4677J1ZA PAN No:AABCP-4677-J

IRN : 2bb4fca93bd8c5deabe58e589354e1c28cbd8951d52ce-1357eed474e42b81840
Ack No. : 182416493803832
Ack Date : 21-Jun-24

Details of Reciever(Billed To):
Alok Ferro Alloys Limited
Plot No. 458/1, 459
Urla Industrial Area Urla,
Raipur-492003
Phone No.:
GSTIN No.: **22AACCA0569P1ZL**
PAN No.: **AACCA0569P**

Invoice No : SPDOC/2	dt : 20-Jun-24
PO No : Power\24-25\PO(RM)\0012	dt : 6-May-24
LR No. :	dt :
Broker :	
Transport :	
Vehicle Owner :	
Licence No:	Vehicle No.:
Driver Name & No: , Mo:-	
Freight (PMT) :	Total Freight:
Advance Paid :	Balance to Pay:
Terms of Payment:	
E-Way Bill No :	

No.	Description of Goods	HSN/SAC	Quantity	Rate	Per	Amount
1	**De - Oiled Clay** Containing Organic Matter Loose in Bulk	250840	1,345.130 MTS	1.00	MTS	1,345.13
	Total					1,345.13
	Output CGST					33.63
	Output SGST					33.63
	Round Off					(-)0.39
	Total		1,345.130 MTS			1,412.00

ALOK FERRO ALLOYS LTD.
Passed for Payment of Rs. 1412
(Rupess One Thousand four hundred Twelve)
M.D. A/O ACCOUNTANT

Amount In Words : **Indian Rupees One Thousand Four Hundred Twelve Only**

Bank Details:
Bank Name : **Yes Bank (OD)**
A/C No. : **004788900000710**
Branch : **CIVIL LINES, RAIPUR BRANCH**
IFSC : **YESB0000047**

HSN/SAC	Taxable Value	CGST Rate	CGST Amount	SGST/UTGST Rate	SGST/UTGST Amount	Total Tax Amount
250840	1,345.13	2.50%	33.63	2.50%	33.63	67.26
Total	1,345.13		33.63		33.63	67.26

Terms & Condition:
Material Lifted Between 03.06.2024 to11.06.2024 details of which are attached with this bill on Ex-Factory Basis

For, Paras Vanaspati Pvt Ltd
PARAS VANASPATI PVT. LTD. RAIPUR (C.G.)
21/06/24
Authorised Signatory

GOODS ONCE SOLD WILL NOT BE TAKEN BACK

PARAS VANASPATI PVT LTD. TO ALOK FERRO ALLOYS LTD

POWER\24-25\PO(RM)\0012 Dt-05-06-2024

Sr.No	Gate Entry Date	Vehicle No.	Challan Qty.	Transporter Name
1	03/06/2024	CG04JC 4601	17.045	KOAS VENTURES,tpt
2	03/06/2024	CG04JD 1087	15.420	KOAS VENTURES,tpt
3	03/06/2024	CG04JE 1014	22.720	KOAS VENTURES,tpt
4	03/06/2024	CG04JC 4601	17.385	KOAS VENTURES,tpt
5	03/06/2024	CG04JD 1087	16.885	KOAS VENTURES,tpt
6	03/06/2024	CG04JE 1014	23.455	KOAS VENTURES,tpt
7	03/06/2024	CG04JE 1014	22.630	KOAS VENTURES,tpt
8	03/06/2024	CG04JD 1087	16.705	KOAS VENTURES,tpt
9	03/06/2024	CG04JC 4601	18.560	KOAS VENTURES,tpt
10	04/06/2024	CG04JD 5076	24.020	KOAS VENTURES,tpt
11	04/06/2024	CG04JC 4601	18.920	KOAS VENTURES,tpt
12	04/06/2024	CG04JE 1014	25.125	KOAS VENTURES,tpt
13	04/06/2024	CG04JD 1087	17.990	KOAS VENTURES,tpt
14	04/06/2024	CG04JC 4601	18.750	KOAS VENTURES,tpt
15	04/06/2024	CG04JD 5076	24.610	KOAS VENTURES,tpt
16	04/06/2024	CG04JE 1014	25.295	KOAS VENTURES,tpt
17	04/06/2024	CG04JD 1087	16.745	KOAS VENTURES,tpt
18	04/06/2024	CG04JC 4601	17.840	KOAS VENTURES,tpt
19	05/06/2024	CG04JC 4601	18.255	KOAS VENTURES,tpt
20	05/06/2024	CG04JE 1014	25.155	KOAS VENTURES,tpt
21	05/06/2024	CG04JD 1087	16.695	KOAS VENTURES,tpt
22	05/06/2024	CG04JC 4601	18.155	KOAS VENTURES,tpt
23	05/06/2024	CG04JE 1014	23.120	KOAS VENTURES,tpt
24	05/06/2024	CG04JD 1087	16.080	KOAS VENTURES,tpt
25	05/06/2024	CG04JC 4601	18.415	KOAS VENTURES,tpt
26	05/06/2024	CG04JE 1014	22.465	KOAS VENTURES,tpt
27	05/06/2024	CG04JD 1087	16.625	KOAS VENTURES,tpt
28	06/06/2024	CG04JE 1014	24.720	KOAS VENTURES,tpt
29	06/06/2024	CG04JC 4601	17.685	KOAS VENTURES,tpt
30	06/06/2024	CG04JD 1087	16.705	KOAS VENTURES,tpt
31	06/06/2024	CG04JE 1014	23.815	KOAS VENTURES,tpt
32	06/06/2024	CG04JC 4601	18.965	KOAS VENTURES,tpt
33	06/06/2024	CG04JD 1087	16.760	KOAS VENTURES,tpt
34	06/06/2024	CG04JE 1014	22.535	KOAS VENTURES,tpt
35	06/06/2024	CG04JC 4601	16.975	KOAS VENTURES,tpt
36	06/06/2024	CG04JD 1087	16.155	KOAS VENTURES,tpt
37	07/06/2024	CG04JE 1014	24.155	KOAS VENTURES,tpt
38	07/06/2024	CG04JC 4601	18.280	KOAS VENTURES,tpt
39	07/06/2024	CG04JD 1087	16.535	KOAS VENTURES,tpt
40	07/06/2024	CG04JE 1014	23.850	KOAS VENTURES,tpt
41	07/06/2024	CG04JD 1087	16.950	KOAS VENTURES,tpt
42	07/06/2024	CG04JC 4601	17.960	KOAS VENTURES,tpt
43	07/06/2024	CG04JE 1014	24.010	KOAS VENTURES,tpt
44	07/06/2024	CG04JD 1087	16.560	KOAS VENTURES,tpt
45	07/06/2024	CG04JC 4601	18.605	KOAS VENTURES,tpt
46	07/06/2024	CG04JE 1014	22.870	KOAS VENTURES,tpt
47	08/06/2024	CG04JD 1087	16.155	KOAS VENTURES,tpt
48	08/06/2024	CG04JC 4601	18.145	KOAS VENTURES,tpt
49	08/06/2024	CG04JE 1014	22.535	KOAS VENTURES,tpt
50	09/06/2024	CG04JD 1087	15.770	KOAS VENTURES,tpt
51	09/06/2024	CG04JD 1087	16.115	KOAS VENTURES,tpt
52	09/06/2024	CG04JE 1014	23.880	KOAS VENTURES,tpt
53	09/06/2024	CG04JC 4601	17.745	KOAS VENTURES,tpt
54	09/06/2024	CG04JD 1087	17.100	KOAS VENTURES,tpt
55	09/06/2024	CG04JE 1014	24.655	KOAS VENTURES,tpt
56	09/06/2024	CG04JC 4601	17.955	KOAS VENTURES,tpt
57	09/06/2024	CG04JC 4601	17.945	KOAS VENTURES,tpt
58	10/06/2024	CG04JC 4601	17.030	KOAS VENTURES,tpt
59	10/06/2024	CG04JE 1014	23.220	KOAS VENTURES,tpt
60	10/06/2024	CG04JD 1087	15.525	KOAS VENTURES,tpt
61	10/06/2024	CG04JE 1014	23.570	KOAS VENTURES,tpt
62	10/06/2024	CG04JC 4601	18.020	KOAS VENTURES,tpt
63	10/06/2024	CG04JD 1087	16.360	KOAS VENTURES,tpt
64	10/06/2024	CG04JC 4601	17.175	KOAS VENTURES,tpt
65	10/06/2024	CG04JD 1087	16.910	KOAS VENTURES,tpt
66	10/06/2024	CG04JE 1014	22.930	KOAS VENTURES,tpt
67	11/06/2024	CG04JE 1014	24.845	KOAS VENTURES,tpt
68	11/06/2024	CG04JD 1087	16.005	KOAS VENTURES,tpt
69	11/06/2024	CG04JC 4601	16.385	KOAS VENTURES,tpt
			1345.130	

ALOK FERRO ALLOYS LTD.
PLOT NO. 458/1,459 URLA INDUSTRIAL AREA RAIPUR CG
WEIGHMENT SLIP

RST No. 5547

Vehicle No. CG04JC/4601

	0	**Gross (Kg)**	28040
	0	**Tare (Kg)**	10890
	0	**Net (Kg)**	**17150**
		Transaction Time	03/06/2024 12:13 PM
Gross Time	03/06/2024 11:34 AM	**Tare Time**	03/06/2024 12:13 PM
		Remarks	
Operator	Operator SHYAM	**Sign**	

Driver : Officer : Depositor : 465/Kg. Ext.

No responsibility of weight once the truck leaves weighbridge.

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ALOK FERRO ALLOYS LTD.
PLOT NO. 458/1,459 URLA INDUSTRIAL AREA RAIPUR CG
WEIGHMENT SLIP

RST No. 5548

Vehicle No. CG04JD/1087

	0	**Gross (Kg)**	25660
	0	**Tare (Kg)**	10050
	0	**Net (Kg)**	**15610**
		Transaction Time	03/06/2024 12:18 PM
Gross Time	03/06/2024 11:37 AM	**Tare Time**	03/06/2024 12:18 PM
		Remarks	
Operator	Operator SHYAM	**Sign**	

Driver : Officer : Depositor : 290/Kg. Ext.

No responsibility of weight once the truck leaves weighbridge.

Sonuuu

ALOK FERRO ALLOYS LTD
In Coming Material
TIME 11.25 DATE 03/06/24
SECURITY OFFICER SIGNATURE

Out
12.50

ALOK FERRO ALLOYS LTD
In Coming Material
TIME 11.25 DATE 03/06/24
SECURITY OFFICER SIGNATURE

Out
12.50

ALOK FERRO ALLOYS LTD.
PLOT NO. 458/1,459 URLA INDUSTRIAL AREA RAIPUR CG
WEIGHMENT SLIP

RST No. 5551

Vehicle No. CG04JC/4601

	0	**Gross (Kg)**	28340
	0	**Tare (Kg)**	10860
	0	**Net (Kg)**	**17480**
		Transaction Time	03/06/2024 03:31 PM
Gross Time	03/06/2024 02:59 PM	**Tare Time**	03/06/2024 03:31 PM
		Remarks	
Operator	Operator	**Sign**	

Officer :

Depositor :

Driver :

No responsibility of weight once the truck leaves weighbridge.

ALOK FERRO ALLOYS LTD.
PLOT NO. 458/1.459 URLA INDUSTRIAL AREA RAIPUR CG
WEIGHMENT SLIP

RST No. 5549

Vehicle No. CG04JE/1014

	0	**Gross (Kg)**	36780
	0	**Tare (Kg)**	13880
	0	**Net (Kg)**	**22900**
		Transaction Time	03/06/2024 12:34 PM
Gross Time	03/06/2024 11:39 AM	**Tare Time**	03/06/2024 12:34 PM
		Remarks	
Operator	Operator Kundan	**Sign**	Baby

Officer :

Depositor : 180/19 Ex 7.

Driver :

No responsibility of weight once the truck leaves weighbridge.

ALOK FERRO ALLOYS LTD
In Coming Material
TIME 14.55 DATE 03/06/24
SECURITY OFFICER SIGNATURE

out
15.55 Lastm

ALOK FERRO ALLOYS LTD
In Coming Material
TIME 11.25 DATE 03/06/24
SECURITY OFFICER SIGNATURE

out
12.50 Lastm

ALOK FERRO ALLOYS LTD.
PLOT NO. 458/1.459 URLA INDUSTRIAL AREA RAIPUR CG
WEIGHMENT SLIP

RST No. 5552

Vehicle No. CG04JD/1087

	0	**Gross (Kg)**	27110
	0	**Tare (Kg)**	10080
	0	**Net (Kg)**	**17030** ✓
		Transaction Time	03/06/2024 03:35 PM
Gross Time	03/06/2024 03:10 PM	**Tare Time**	03/06/2024 03:35 PM
		Remarks	
Operator	Operator - Uttam	**Sign**	- Uttam

Driver : Officer : Depositor : 145 kg. Ext.

No responsibility of weight once the truck leaves weighbridge.

Sonuu

ALOK FERRO ALLOYS LTD.
PLOT NO. 458/1.459 URLA INDUSTRIAL AREA RAIPUR CG
WEIGHMENT SLIP

RST No. 5550

Vehicle No. CG04JE/1014

	0	**Gross (Kg)**	37520
	0	**Tare (Kg)**	13860
	0	**Net (Kg)**	**23660** ✓
		Transaction Time	03/06/2024 03:27 PM
Gross Time	03/06/2024 02:22 PM	**Tare Time**	03/06/2024 03:27 PM
		Remarks	
Operator	Operator - Uttam	**Sign**	- Uttam

Driver : Officer : Depositor : 205 kg - Ext.

No responsibility of weight once the truck leaves weighbridge.

Sonuu

ALOK FERRO ALLOYS LTD
In Coming Material
TIME 15:00 DATE 03/06/24
SECURITY OFFICER SIGNATURE

out
15.50 Lostm

ALOK FERRO ALLOYS LTD
In Coming Material
TIME 14.45 DATE 03/06/24
SECURITY OFFICER SIGNATURE

out
15.45 Lostm

ALOK FERRO ALLOYS LTD.
PLOT NO. 458/1.459 URLA INDUSTRIAL AREA RAIPUR CG
WEIGHMENT SLIP

RST No. 5553

Vehicle No. CG04JE/1014

0
0
0

		Gross (Kg)	36630
		Tare (Kg)	13840
		Net (Kg)	**22790**
		Transaction Time	03/06/2024 07:25 PM
Gross Time	03/06/2024 05:40 PM	**Tare Time**	03/06/2024 07:25 PM
		Remarks	
Operator	Operator	**Sign**	

Driver : Officer : Depositor

No responsibility of weight once the truck leaves weighbridge.

160. Extra

ALOK FERRO ALLOYS LTD.
PLOT NO. 458/1.459 URLA INDUSTRIAL AREA RAIPUR CG
WEIGHMENT SLIP

RST No. 5554

Vehicle No. CG04JD/1087

0
0
0

		Gross (Kg)	26970
		Tare (Kg)	10070
		Net (Kg)	**16900**
		Transaction Time	03/06/2024 07:28 PM
Gross Time	03/06/2024 05:44 PM	**Tare Time**	03/06/2024 07:28 PM
		Remarks	
Operator	Operator	**Sign**	

Driver : Officer : Depositor

No responsibility of weight once the truck leaves weighbridge.

195 Kg Extra

ALOK FERRO ALLOYS LTD
In Coming Material
TIME 17:30 DATE 03/06/2024
SECURITY OFFICER SIGNATURE

out
19:45

ALOK FERRO ALLOYS LTD
In Coming Material
TIME 17:40 DATE 03/06/2024
SECURITY OFFICER SIGNATURE

out
19:50

ALOK FERRO ALLOYS LTD.
PLOT NO. 458/1.459 URLA INDUSTRIAL AREA RAIPUR CG
WEIGHMENT SLIP

RST No. 5555

Vehicle No. CG04JC/4601

	0	**Gross (Kg)**	29640
	0	**Tare (Kg)**	10880
	0	**Net (Kg)**	**18760**
		Transaction Time	03/06/2024 07:31 PM
Gross Time	03/06/2024 05:53 PM	**Tare Time**	03/06/2024 07:31 PM
		Remarks	
Operator	Operator	**Sign**	

Driver : Officer : Depositor :

No responsibility of weight once the truck leaves weighbridge.

200 kg Extra

ALOK FERRO ALLOYS LTD.
PLOT NO. 458/1.459 URLA INDUSTRIAL AREA RAIPUR CG
WEIGHMENT SLIP

RST No. 5557

Vehicle No. CG04JD/5076

	0	**Gross (Kg)**	37440
	0	**Tare (Kg)**	13300
	0	**Net (Kg)**	**24140**
		Transaction Time	04/06/2024 12:16 PM
Gross Time	04/06/2024 10:36 AM	**Tare Time**	04/06/2024 12:16 PM
		Remarks	
Operator	Operator SHYAM	**Sign**	

Driver : Officer : Depositor : 120 kg Ext.

No responsibility of weight once the truck leaves weighbridge.

ALOK FERRO ALLOYS LTD
In Coming Material
TIME 17:50 DATE 03/06/2024
SECURITY OFFICER SIGNATURE

out
19:50

ALOK FERRO ALLOYS LTD
In Coming Material
TIME 10.35 DATE 04/06/24
SECURITY OFFICER SIGNATURE

out
13.15

ALOK FERRO ALLOYS LIMITED(POWER DIVISION).

PLOT NO 458/1, 459, Urla Industrial Complex Urla, Raipur-492003 (C.G.) Phone : 492003CHHATTISGARHINDIA
Phone : 0771-4082850 / 60 Telefax : 0771-4082880 Email : admin@afal.co.in

Purchase Voucher

Voucher No. : **POWER\24-25\PV\1023**
Date : **16/12/2024**

Finance Book : **POWER - TRANSACTION FB**

	Particulars	Debit Amount Rs.	Debit Amount P.	Credit Amount Rs.	Credit Amount P.
By	R/M COKE/COAL PROVISION A/C	10631	50		
By	R/M PURCHASE OFFSET A/C	02	94		
By	GST INPUT A/C (CENTRAL GST)	265	72		
By	GST INPUT A/C (STATE GST)	265	72		
To	PARSA KENTE COLLIERIES LTD			11160	00
To	R/M COAL/COKE			02	94
To	CLOSING STOCK OF COAL & COKE			02	94

Narration : Being Invoice (Material) received for Purchase Of . REJECTED COAL 38.650 M.T. @ Rs 275.00 Per M.T. ,from PARSA KENTE COLLIERIES LTD vide Invoice No. 192202407396 dt. 01/12/2024 against PO No. POWER\24-25\PO(RM)\0037 ,GRN No. POWER\24-25\GRN(RM)\2145 ,

Account Name	Ref. No.	Ref. Date	Amount (in Rs.)	DueDate
PARSA KENTE COLLIERIES LTD	192202407396	01/12/2024	11160.00 Cr.	16/12/2024

Rupees : Eleven Thousand One Hundred Sixty-Five And Eighty-Eight Paise Only

11165	88	11165	88

PRIYANKA MISHRA (Prepared by)
PRIYANKA MISHRA (Authorized by)
(Approved by)
(Authorized Signatory)

ALOK FERRO ALLOYS LIMITED(POWER DIVISION).

PLOT NO 458/1, 459,Urla Industrial Complex Urla,Raipur-492003 (C.G.)Pincode : 492003CHHATTISGARHINDIA
Phone : 0771-4082850 / 60 Telefax : 0771-4082880 Email : admin@afal.co.in

Purchase Invoice

PARSA KENTE COLLIERIES LTD
PARSA EAST KANTA VILLAGE,PARSA.TEHSIL
UDAIPUR.,SURGUJA,CHHATTISGARH,INDIA
Email : anup.panda@adani.in
Phone : 9903968564

Bill No. : POWER\24-25\PB(RM)\0747
Date : 16/12/2024
Party Bill No. : 192202407396
Party Bill Date : 01/12/2024
Party Bill Amt. : 10628.00

Sl. No.	Challan No.	Challan Date	GRN No.	GRN Date/ Creat. Date/ Auth. Date	PO/ WO No.	PO/ WO Date
1	192202407396	01/12/2024	POWER\24-25\GRN(RM)\2145	01/12/2024 10/12/2024 10/12/2024	POWER\24-25\PO(RM)\0037	17/10/2024

Due Date : 16/12/2024
CostCenter : POWER PLANT

Basic Amount	10628.75
CGST @ 2.5%	265.72
SGST @ 2.5%	265.72
ROUND OFF(-)	0.19
Total	**11160.00**

Rs. In Words : **Eleven Thousand One Hundred Sixty Only**

Passed Bill Amount **11160.00**

For,**ALOK FERRO ALLOYS LIMITED(POWER DIVISION).**

PRIYANKA MISHRA
(Prepared By)

(Checked By)

PRIYANKA MISHRA
(Approved By)

2145

PARSA KENTE COLLIERIES LIMITED

Agent of M/s RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED
Site Office: Parsa East Kanta Basen Open Cast Mine, Village Parsa, Tehsil-Udaipur, Dist.-Surguja, Chattisgarh-497116
City Office:Ground Floor,Adani House,Beside CR Hights,Nr Basant Petrol Pump,Kharsia Road,Ambikapur,Chattisgarh-497001

PAN No. : AAECP5581E
GSTIN. : 22AAECP5581E1ZL

Delivery Challan

Consignee
To,
ALOK FERRO ALLOYS LTD

PLOT NO 458/1, 459
URLA INDUSTRIAL AREA, URLA
RAIPUR Postal Code-492003
PAN No :AACCA0569P
GSTIN :22AACCA0569P1ZL

Challan No. :	6207213567	Date :	01.12.2024
P.O No.:	-	Date :	
Disp.Through	Truck	Destination:	RAIPUR
Transporter :	JAI JAGDISH TRANSPORT		
LR No. :	91961	Date :	30.11.2024
Transit Pass		Date :	01.12.2024
Vehicle No. :	CG04PS6952		

Sr No	Item Description	UoM	Quantity
10	WASHERY REJECT (HSN:2701)	MT	38.650

We declared that the Consignment Value of the goods (being supplied under this challan) in accordance with Explanation 2 to Rule 138 of the Central Goods and Service Tax Rules , 2017 is less than Rs. 50,000/- (Rupees fifty thousand). Accordingly e-way bill is not applicable and provided .

Total Quantity 38.650

Receiver/Driver Signature

Gross Wt in MT 55.710
Tare Wt in MT 17.060

Parsa Kente Collieries Limited
(Agent of M/s RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED)

Authorised Signatory

Registered OFfice: 32,6th Floor, Mahima Triniti, Plot No.65, Swej Farm, New Sanganer Road, Sodala, Jaipur-302019
Tel:- +91 141 2292063-64, Fax: +91 141 2292065

Subject to Jaipur Jurisdiction

PARSA KENTE COLLIERIES LIMITED

Agent of M/s RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED
Site Office: Parsa East Kanta Basen Open Cast Mine, Village Parsa, Tehsil-Udaipur, Dist.-Surguja, Chattisgarh-497116
City Office:Ground Floor,Adani House,Beside CR Hights,Nr Basant Petrol Pump,Kharsia Road,Ambikapur,Chattisgarh-497001

PAN No. : AAECP5581E
GSTIN. : 22AAECP5581E1ZL

Delivery Challan

Consignee
To,
ALOK FERRO ALLOYS LTD

PLOT NO 458/1, 459
URLA INDUSTRIAL AREA, URLA
RAIPUR Postal Code-492003
PAN No :AACCA0569P
GSTIN :22AACCA0569P1ZL

Challan No. :	6207213567	Date :	01.12.2024
P.O No.:	-	Date :	
Disp.Through	Truck	Destination:	RAIPUR
Transporter :	JAI JAGDISH TRANSPORT		
LR No. :	91961	Date :	30.11.2024
Transit Pass		Date :	01.12.2024
Vehicle No. :	CG04PS6952		

Sr No	Item Description	UoM	Quantity
10	WASHERY REJECT (HSN:2701)	MT	38.650

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Tel:- +91 141 2292063-64, Fax: +91 141 2292065

Subject to Jaipur Jurisdiction

VEHICLE GATE PASS

Gate Pass No : 200199535

Vehicle No. : CG04PS6952 ()

Transporter : JAI JAGDISH TRANSPORT

Cargo : WASHERY REJECT

From :

To :

GATE IN	
DATE	TIME
30.11.2024	19:34:40
Security Signature	

GATE EXIT	
DATE	TIME
01.12.2024	04:03:34
Security Signature	

Vehicle Driver Signature

PARSA KENTE COLRS LTD

GOVERNMENT OF CHHATTISGARH
MINERAL RESOURCES DEPARTMENT
(Surguja District)

Copy For : Purchaser / Consignee (प्रति : क्रेता / परेषिती(माल पानेवाला))

FORM-10 See Rule 13 (iii) Royalty Paid Transit Pass प्ररूप -१० (नियम -१३ (३) देखिये) रॉयल्टी पेड अभिवहन पास	Royalty Paid Transit Pass Number (रॉयल्टी भुगतान अभिवहन पास क्रमांक) : RPTP_NO_5448820
District (जिला) Issue Date & Time (जारी करने का दिनांक एवं समय)	Surguja 01-12-2024 03:43:58 AM
E-Permit No. (ई - परमिट क्रं.)	BL_RPTP_0094249
Vehicle Type (वाहन का प्रकार) Vehicle No (वाहन क्रमांक) Portal Registration No. of Vehicle (पोर्टल पंजीकरण क्रमांक)	Trailer CG04PS6952 VP153838
Name and Address of the Permit Holder (अनुज्ञप्तिधारी का नाम एवं पता)	Rajasthan Rajya Vidyut Utpadan Nigam Limited,C.R.HEIGHTS FOURTH FLOOR KHARSIYA ROAD AMBIKAPUR
Mining Area Details (खान क्षेत्र का विवरण) Village/Tehsil/District (ग्राम / तहसील / जिला)	Parsa / Udaipur / Surguja
Name of Mineral(s)/Products खनिज(खनिजों)/उत्पादों का नाम	Coal
Grade (ग्रेड)	Rejected - Not Applicable
Tare Weight (Qty.) (वाहन का टेयर वेट (टन))	17.06Metric Tonne
Gross Weight (Qty.) (वाहन का ग्रॉस वेट (टन))	55.71Metric Tonne
Net Weight of Mineral (Qty.) (परिवहन किये जा रहे खनिज की मात्रा (टन))	38.65Metric Tonne
Name of Consignee (भेजने वाले का नाम)	Rajasthan Rajya Vidyut Utpadan Nigam Limited
Mineral Purchaser / Recipient's Name (खनिज क्रेता / प्राप्तकर्ता का नाम)	ALOK FERRO ALLOYS LTD.
Owner (Vehicle) Name & Contact Number (वाहन मालिक (परिवहनकर्ता) का नाम एवं दूरभाष क्रमांक)	Vivek agrawal (9109104744)
Driver Name & Contact Number (वाहन चालक का नाम एवं दूरभाष क्रमांक)	Ranjan (6260860163)
Sale value of the Mineral (खनिज का विक्रय मूल्य)	Rs 275.00 / Metric Tonne
Route (मार्ग)	N/A
Destination of dispatch (प्रेषण का गंतव्य)	,458/1 459 INDUSTRIAL AREA URLA RAIPUR,
This is a system generated e-Transit Pass. So physical signature is not required. Generated Time : 01-12-2024 03:47:15 AM	

GOVT. OF CHHATTISGARH
MINING CHECK POST
RAMPUR, DISTT.-KOREA (C. G.)
01 DEC 2024
Register ..... Pas. No. .....
Serial No. ..... Time ..... AM/PM
Sign. C/P Incharge

8:10 A.M.

GOVT. OF CHHATTISGARH
MINING CHECK POST
RAMPUR DISTT.-KORBA (C.G.)
01 DEC 2024
Register ..... Pas. No. ..... AM/PM
Serial No. ..... Time .....
Sign. C/P Incharge

PARSA KENTE COLLIERIES LTD
Parsa East Kanta Basen, Village Parsa, Tehsil-Udaipur, Dist.-Surguja, Chattisgarh-497445
PAN No. : AAECP5581E
CIN No. : U10200RJ2007PLC025173
GSTIN : 22AAECP5581E1ZL
State Code : 22

Delivery No. : 6207213567

Tax Invoice

To :
ALOK FERRO ALLOYS LTD
PLOT NO 458/1, 459, URLA INDUSTRIAL AREA, URLA,

RAIPUR-492003,
PAN No. : AACCA0569P
GSTIN : 22AACCA0569P1ZL
Place of supply:CHHATTISGARH,INDIA
State Code:22

No : 192202407396 Date : 01.12.2024

IRN No.: 051adf613a2ed2127f11a0d671a620a610273c607dc7b104f1a132bcbfb60bec

Version	1.1	**Supply Type Code**	B2B
Document Type Code	INV	**Sub Supply Type**	Supply
Preceding Invoice No		**Preceding Invoice Date**	
Transaction Mode	Regular	**Tax Scheme**	GST

Whether the Tax is payable on Reverse Charge Basis: N
Whether supply is Service or not: N

E-way Bill No.:		**E-way Bill Validity:**		**Created on:**	

SNo	Item Description	Quantity	UoM	Rate	Per	Amount(INR)
1	WASHERY REJECT HSN/SAC No:27011920	38.650	MT	275.00	1	10,628.75

IN: Central GST	2.5 %	265.72
IN: State GST	2.5 %	265.72
IN: GST Comp Cess		15460.00
Gross Value		**26,620.19**
Less: Reduction in Washery Rejects value		-15460.00

Note:

Net Value : 11,160.19

Amount in words : Rupee Eleven Thousand One Hundred Sixty And Paise Nineteen Only

ALOK FERRO ALLOYS LTD.
Passed for Payment of Rs. 11160
(Rupees Eleven Thousand One Hundred Sixty)

M.D. A/O ACCOUNTANT

For PARSA KENTE COLLIERIES LTD
Signature valid
Digitally Signed By: DS PARSA KENTE COLLIERIES LIMITED 1
Sun 01-Dec-2024 03:37:28 IST
Approved by Harish Sharma

Authorised Signatory

Subject to Raipur Jurisdiction

JAI JAGDISH TRANSPORT

GST No : 22AAEFJ6547P1ZY
G-32, Hira Arcade, Pandri, Raipur(C.G.)

Vizag Office	Raipur Office
7036501111	9109103330
9109106721	9109104742
9109106722	9109104745

RAIPUR **Bilty No.** RV 91961 **Date :** 30/11/2024

Consignor
Address : PARSA KANTE COLLIERIES LTD RRVVNL

GST No.

Consignee
Address : ALOK ferro Alloys (Unit Raipur (CG)

GST No.

From City : Ambikapur **To City :** Raipur **Vessel/Invoice # :** **AMT**

Sr.	Nature of Goods & Said to Contain	Gross Weight	Tare Weight	Net Weight	Rate	To Pay
	Reject coal					

Truck No : CG04PS 6952
Driver :
Driver's Mobile : Ranjan
License No : 6260860163
Driver Temperature:
Transporter : 16281
Owner Name :
Remarks : jai jagdish trp.

Adv Cheque No. :

GPS Issued :

Sub Total :
Advance : 0.00
Shortage :
F-
Net Amount :
Balance :

Adv IFSC No **Adv IFSC :** code. 266604 D.O.No.3174004611

Signature of Consignee or his Agent **Entry By/Updated By** Rajesh

नोट: अधिक कम होने पर - प्रति किलो के हिसाब से पैसा काटा जायेगा. **For, JAI JAGDISH TRANSPORT**

माल भेजने की शर्तें

57.000 MT

1. इस चालान की बिल्टीयाँ जो माल भेजने के लिए आज अच्छी हालत में मोटर मालिक के हाथ में दी जाती है, जिसके नाम उसकी अथवा उसके मोटर ड्राईव्हर को माल पहुँचाने के लिये जो स्थान बताये गये वहाँ पर माल को सुरक्षापूर्वक ले जावेगा और अच्छी हालत में माल पाने वाले के सुपुर्द किया गया.
2. मालिक और ट्रक संयुक्त रुप से भिन्न-भिन्न रुप से सहमत हैं। ये शर्तें निम्नानुसार हैं

(अ) माल पाने वाले को अथवा माल भेजने वालों को माल की रसीद नियत समय के अंदर हस्ताक्षर लेकर यह बतलाकर देगा कि यह माल जो सौंपा गया है, अच्छी हालत में है, अथवा जैसा भी हो।

(ब) यह तमाम हानियों तथा उसके मूल्य का कुल खर्च का जिम्मेदार होगा जबकि माल ड्राईव्हर के अधिकार में है और कोई हानि हो जावे तो अपना कर्तव्य समझकर चुकाना होगा.

(स) समस्त माल और उसका मूल्य रसीदें जब तक उसके पास रहे एक निपक्षाग्रहित संबंधी सम्पत्ति समझे वे अपने खुद के काम नहीं ला सकते।

(द) मालिक अथवा मोटर ड्राईव्हर के हस्ताक्षर संतोषजनक प्रमाण होगे कि उन्हें माल अच्छी हालत में प्राप्त हुआ. (य) ट्रक मालिक व्यक्तिगत रुप से माल का जवाबदार समझा जावेगा जो उसके ड्राईव्हर को पहुंचाने के लिये सौंपा गया है, जो भी लाभ हानि ड्राईव्हर द्वारा होगा, मालिक उसका जवाबदार होगा।

(र) नाका, राहदारी, टैक्स ट्रांसपोर्ट की कोई जवाबदारी नहीं होगी।

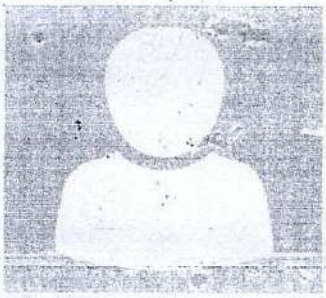
(ल) पार्टी का माल पहुँचाने पर भाडे की जवाबदारी गाडी मालिक पर होगी।

गाडी मालिक और गाडी चालक भारत सरकार द्वारा जारी किए गए समस्त यातायात और परिवहन विभाग के नियम का पालन करेगा। किसी भी प्रकार के उल्लंघन से होने वाले जुर्माने या दंड के वह स्वयं जिम्मेदार होंगे।

यह की वाहन मालिक भारत सरकार द्वारा जारी किए गए e way bill की वैधता के समय सीमा का ध्यान रखेगा और माल को इस समय सीमा के समाप्त होने से पूर्व बताए गए स्थान पे पहुँचा देगा। किसी कारण से विलम्ब होने पे e way bill की वैधता की समाप्ति से २४ घंटे पूर्व ट्रांसपोर्ट कम्पनी को वैधता बढाने की जानकारी देनी होगी। जानकारी ना देने से या विलम्ब से जानकारी देने पे किसी भी प्रकार के जुर्माने की जिम्मेदारी ट्रक मालिक की होगी।

Driver Details :

Driver's Photo



Driver's Licence

(13) OK

ALOK FERRO ALLOYS LTD
In Coming Material
TIME 15:30 DATE 01/12/2024
SECURITY OFFICER SIGNATURE

ALOK FERRO ALLOYS LTD.
PLOT NO. 458/1.459 URLA INDUSTRIAL AREA RAIPUR CG
WEIGHMENT SLIP

RST No. 6684

Vehicle No. CG04PS/6952

		Gross (Kg)	55610
		Tare (Kg)	16950
		Net (Kg)	38660
		Transaction Time	01/12/2024 04:56 PM
Gross Time	01/12/2024 03:57 PM	Tare Time	01/12/2024 04:56 PM
		Remarks	
Operator	Operator -	Sign	-

Driver : Officer : Depositor :

No responsibility of weight once the truck leaves weighbridge.

ALOK FERRO ALLOYS LTD
In Coming Material
TIME 15:30 DATE 01/12/24
SECURITY OFFICER SIGNATURE

01/12
17:30

Fly Ash Lifting Agreement

This Agreement is being entered upon 1st Day of June of 2024 by and between the parties:-

M/s Alok Ferro Alloys Ltd, a company registered under the Companies Act 1956 having its plant and office at Plot No. 458/1 & 459, Urla Industrial Complex, Urla, Raipur, 492003, Chhattisgarh, India through Mr. Sanjay kamble S/o Shri Puran lal Kamble, Manager(Sales and Marketing) Aged about 53 years, herein after referred as " **The Company**" (the expression shall mean and include its successors and assignees) of the One Part.

And

M/s Jain Fly Ash Bricks through Proprietor Shri Ankit Tolia GST No. 22ANAPT7512K1ZZ, having its Fly Ash Bricks manufacturing Plant at ChhaChan Peri Tahsil, Raipur Herein after referred as **"The Fly Ash Brick manufacturer"** (the expression shall mean and include its successors and assignees) of the Second Part.

M/s JAIN FLYASH BRICKS
Proprietor

Hereafter, will be collectively be referred as Both Parties or Parties.

Whereas, Both parties have agreed to enter upon this Agreement for mutual consideration described as follows:-

1) Scope of Work:

(a) The Company has its Captive Power Plant located at Plot No. 458/1 & 459, Urla Industrial Complex, Urla, Raipur, 492003, Chhattisgarh, India and having a Generation capacity of 8MW. The Fly Ash is generated as Solid waste during the generation of Electricity.

(b) The Fly Ash Brick manufacturer have their Brick Plant at Chachhan Peri, Raipur and is willing to lift-off/utilise the fly-ash generated at the Company's Plant site for manufacture of Fly Ash Bricks.

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

2) Term of Agreement:

Both Parties have agreed to enter upon this Agreement on ..... for a period of 1 year i.e. Financial year 2024-25 and to abide by all

the terms and conditions hereon. Further, if both parties are willing then they shall extend or renew the agreement as per their mutual considerations.

3) Utilisation of Fly Ash

The Fly Ash Brick manufacturer agrees to utilise the Fly Ash generated by the Company for manufacturing of Fly Ash Bricks only and to follow all the rules, norms, guidelines and regulations of the Central/ State Pollution Control Boards/ Local Authorities while lifting and utilising the fly Ash.

4) Lifting of Bad Material:

All the terms and conditions of this agreement shall have same meaning and force for lifting of Bad Material from the Company's Plant Site.

5) Transportation

a. The Fly Ash Brick manufacturer has agreed to collect the Fly ash from the company's plant site and shall do so by their own transportation from the Company's Plant site to their Brick Plant at their own cost with prior intimation of Vehicle to the Company.
b. The Fly Ash Brick manufacturer shall ensure and provide the appropriate trucks/vehicles in accordance with schedule given by the Company.
c. The Fly Ash Brick manufacturer shall ensure that the trucks/vehicles sent by them is embedded with equipment of GPS and Geo-Tagging.
d. The Fly Ash Brick manufacturer shall take appropriate measures and precautions to cover the truck/vehicle completely with High quality tarpaulin to avoid spillage/leakage during the transportation.

M/s JAIN FLYASH BRICKS
Proprietor

6) Liabilities of the Company:

a. Fly Ash is a Solid waste generated at the Company's Plant during Generation of power whereas the Company is bound by environmental rules and regulations to dispose off the flyash appropriately contributing towards sustainable environment.

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

b. The Company shall load the fly ash and spray water on the ash while and after loading the fly ash for transportation.
c. The Company will keep record and weigh the quantity of flyash loaded onto the transportation vehicle.

7) Liabilities of The Fly Ash Brick manufacturer

a. The Fly Ash Brick manufacturer shall take responsibility to follow all the rules and guidelines of the Central/ State pollution Control Boards and Local Authorities.

b. The Fly Ash Brick manufacturer shall take appropriate measures and precautions to cover the truck/vehicle completely with high quality tarpaulin.

c. The Fly Ash Brick manufacturer is totally responsible for safe and environment friendly transportation of the Fly Ash from Company's Plant Site to the Brick Plant.

d. The Fly Ash Brick manufacturer will be responsible and liable for the safety and care of the workmen/labourers and Drivers involved in operation of trucks/vehicles used during the Lifting of Fly Ash at the Company's Plant Site and there after.

e. The Fly Ash Brick manufacturer shall ensure that equipment/trucks and vehicles have proper registration, insurance and fitness as per RTO norms.

f. The Fly Ash Brick manufacturer will ensure the Drivers have appropriate licences, fitness and necessary documents for driving of trucks/vehicles.

g. Any Driver/Workmen/Representative of the Fly Ash Brick Manufacturer shall follow all the guidelines and safety rules of the Company. The Fly Ash Brick manufacturer shall be responsible for the conduct of their workmen/labourer/driver at the Company's site and the company may remove workmen/labourer/driver for mis-conduct by any of them from the Company Premises.

h. Once, after lifting the Fly Ash the Fly Ash manufacturer shall keep the Fly Ash in their Brick Plant premises and shall not dump the same anywhere else whether authorised or unauthorised.

M/s JAIN FLYASH BRICKS
Proprietor

8) Violation of Terms of Agreement:

The Company solely reserves the rights to blacklist the Driver or Vehicle in case of violation of terms and conditions of this

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

Agreement and if the violation continues the Company reserves the right to terminate the Agreement.

9) Termination of Agreement:

The Company shall terminate the Agreement when deemed fit or in case of stoppage of solid waste generation.

10) Disputes and Settlement:

a. Any Dispute between the Company and The Fly Ash Brick manufacturer shall be first aimed to be settled through amicable means by mutual considerations.
b. If not resolved amicable the Dispute shall be taken to the appropriate Court/ Authority under the Jurisdiction of Raipur, C.G.

11) Severability:

If any part of the agreement violates any law or rules then that part shall be strike of and the rest of the agreement shall continue to be in force.

IN WITNESS WHEREOFF Both parties Agree to the above terms and conditions through their seal and sign:

The Company

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

The Fly Ash Brick manufacturer

M/s JAIN FLYASH BRICKS

Proprietor

Witness:1

Witness:2

Chirag Ku.

ALOK FERRO ALLOYS LIMITED

PLOT NO 458/1, 459,Urla Industrial Complex Urla,Raipur-492003 (C.G.)Pincode : 492003
CHHATTISGARHINDIA
Phone : 0771-4082850 / 60 Telefax : 0771-4082880 Email : admin@afal.co.in

DELIVERY CHALLAN

TRIPLICATE FOR SUPPLIER

(issued under Rule 55 of CGST Rules, 2017)

GSTIN No. : 22AACCA0569P1ZL
CIN No. : U28112CT1987PLC003847

Delivey Challan No.: AFAL(FLY-ASH)\24-25\0177 **Delivery Challan Date: 29/04/2024**

Receiver

Name : **MAA MANIKESWARI AND SONS**
Address : TATIBANDH,RAIPUR,CHHATTISGARH,INDIA
State : CHHATTISGARH
State Code : 22
GSTIN No. : 22AJGPS9448H2ZT
PAN No. : AJGPS9448H

Range : IV
Range Code :
Division : RAIPUR
EWay Bill No. :
Eway Bill Date :
LUT No. :

Place Of Supply : RAIPUR
Name Of State : CHHATTISGARH

GSTIN No. : 22AACCA0569P1ZL
PAN No. : AACCA0569P

Order No. :

Dated : Through : DIRECT

S No.	Description Of Goods	HSN Code	UOM	Qty	Rate	Amount
1	0207010002 FLY ASH	26211000	M.T.	18.660		
	Total:			**18.660**	**Basic Value:**	**0.00**
					Total Amount:	**0.00**

Rs. (In Words) : only
CGST (In Words) :
SGST (In Words) :
IGST (In Words) :

Vehicle No : CG04MV/4060
LR No./R.R. No. : Dt.-

Transporter Name : SELF TRANSPORT
From RAIPUR To RAIPUR

Time of Preparation :
Time of Removal :

Driver Name :
Driving License No. :

Remarks : REMOVED WITHOUT CONSIDERATION

All disputes are subject to RAIPUR JURISDICTION.

Material Received

For,ALOK FERRO ALLOYS LIMITED(POWER DIVISION).

Received By

Aditya Sahu
Prepared By

PRIYANKA MISHRA
Authorized By

Annexure XXX: Record of E-Waste Disposal

Form-6
[See rule 19]

E-WASTE MANIFEST

1.	Sender's name and mailing address (Including Phone No.)	Alok Ferro Alloys Limited (Ferro Division) Plot No. 45&11 455 Ind'l Industrial complex Raisen MP 452003
2.	Sender's authorisation No. if applicable.	
3.	Manifest Document No.:	
4.	Transporter Name and Address: (including Phone No.)	Local Transporter
5.	Type of Vehicle:	DI Pickup
6.	Transporter's Registration No:	
7.	Vehicle Registration No:	CG 04 GD 1623 7
8.	Receiver Name & Address:	M/s Laxmi Metals First Floor Plot No. 7, Gali 9 Enclave Vikaspuri Hastsal New Delhi pin 110059
9.	Receiver's authorisation No., if applicable.	B-29016(182)/25/WM-III
10.	Description of E-Waste (Item, Weight/ Numbers):	ITEM CODE: — WEIGHT (Kgs): 90 kgs NUMBERS: —
11.	Name and stamp of Sender* (Manufacturer or Producer or Bulk Consumer or Collection Centre or Refurbisher or Dismantler): Alok Ferro Alloys Limited Raisen For, Alok Ferro Alloys Ltd. for Stores Dept. Name and stamp / Signature:	Month: JAN / Day: 01 / Year: 2026
12.	Transporter acknowledgement of receipt of E-Wastes Name and stamp / Signature:	Month: / Day: / Year:
13.	Receiver* (Collection Centre or Refurbisher or Dismantler or Recycler) certification of recipt of E-waste LAXMI METALS NEW DELHI Name and stamp / Signature:	Month: JAN / Day: 01 / Year: 2026

Applicable*

ALOK FERRO ALLOYS LIMITED

PLOT NO 458/1, 459, Urla Industrial Complex Urla, Raipur-492003 (C.G.)
Pincode : 492003
CHHATTISGARH INDIA
Phone : 0771-4082850 / 60 Telefax : 0771-4082880
Email : admin@afal.co.in

TAX INVOICE

Original Copy

(INVOICE UNDER RULE 46 OF GST RULES 2017)

INVOICE NO. : C/0002 INVOICE DATE : 02/01/2026 GS TIN No. : 22AACCA0569P1ZL CIN :U28112CT1987PLC003847

PAN No. : AACCA0569P
IRN : 2346e04ad3811de0441e8284945fcb098df6266a8adc5c16b164d5e322901d6b
Ack No. : 182621215894780 Ack Date : 02/01/2026

Range Code : 2 Range : 9
Commisionarate : Raipur
No Tax Payable on reverse Charge

Buyer
Name : LAXMI METALS
Address : FIRST FLOOR,PLOT NO 7,GUPTA ENCLAVE VIKASH NAGAR,HASTSAL,NEW DELHI,DELHI,INDIA
State : DELHI
State Code : 07
GSTIN No. : 07BOIPK3750E2Z1
PAN No. : BOIPK3750E

Consignee
Name : LAXMI METALS
Address : FIRST FLOOR,PLOT NO 7,GUPTA ENCLAVE VIKASH NAGAR,HASTSAL,NEW DELHI,DELHI,INDIA
State : DELHI
State Code : 07
GSTIN No. : 07BOIPK3750E2Z1
PAN No. : BOIPK3750E
Place Of Supply NEW DELHI

Your Order No. : NILL Dated : 02/01/2026

Through : DIRECT

Sl. No.	Description Of Goods	HSN Code	UOM	Quantity	Rate Of GST	Rate	Amount
1	0517060014 MIX E WASTE SCRAP	85481090	KG	90.000		21.00	1890.00
	Total:			**90.000**		**Basic Value:**	**1890.00**
					IGST @18% (Exc)	18.00 %	340.20
						Total Amount:	**2230.20**

(In Words) Rs. : Two Thousand Two Hundred Thirty And Twenty Paise Only

IGST (In Words) Rs. : Three Hundred Forty And Twenty Paise Only

Vehicle No : CG04QM / 6237
LR No./R.R. No. :

Transporter Name : SELF TRANSPORT
From RAIPUR To NEW DELHI
Freight Type : TOPAY

Time of Preparation : 02/01/2026 6:20PM
Time of Removal : 02/01/2026 6:30PM

Payment Credit Days : Immediate
Way Bill No. & Date : 8516 2510 6978 Dt.-02/01/2026
Way Bill Validity Date :

Remarks:

Note : (1) All disputes are subject to RAIPUR JURISDUCTION.
(2) Interest @ 18% p.a will be charged if payment is not made on the due date.

For, Alok Ferro Alloys Ltd.
For,ALOK FERRO ALLOYS LIMITED
Authorised Signatory

Material Received

Received By

ALOK FERRO ALLOYS LTD. RAIPUR (C.G.)

Aditya Sahu
Prepared By

Authorized By

y Bill

WAY BILL Details

y Bill No: **8516 2510 6978** | Generated Date:**02/01/2026 06:29 PM** | Generated By: **22AAC CA056 9P1ZL**
Valid Upto: **09/01/2026**

ode: **Road** | Approx Distance: **1342km**

ype: **Outward - Supply** | Document Details: **Tax Invoice - C/0002 - 02/01/2026** | Transaction type: **Regular** | Portal: **1**

.Address Details

From	To
GSTIN : 22AAC CA056 9P1ZL ALOK FERRO ALLOYS LIMITED CHHATTISGARH :: Dispatch From :: Plot No 458/1, 459 Urla Industrial AreaUrla Raipur,CHHATTISGARH-492003	GSTIN : 07BOI PK375 0E2Z1 LAXMI METALS DELHI :: Ship To :: PLOT NO 7 FIRST FLOOR GUPTA ENCLAVE, VIKAS NAGAR New Delhi,DELHI-110059

. Goods Details

HSN Code	Product Name & Desc.	Quantity	Taxable Amount Rs.	Tax Rate (C+S+I+Cess+Cess Non.Advol)
85481090	& MIX E WASTE SCRAP	90.00 KGS	1890.00	NE+NE+18.000+NE+0.0(

Tot. Tax'ble Amt	CGST Amt	SGST Amt	IGST Amt	CESS Amt	CESS Non.Advol Amt	Other Amt	Total Inv.Amt
1890.00	0.00	0.00	340.20	0.00	0.00	0.00	2230.20

. Transportation Details

Transporter ID & Name : **SELF TRANSPORT** | Transporter Doc. No & Date : **& 02/01/2026**

. Vehicle Details

Mode	Vehicle / Trans Doc No & Dt.	From	Entered Date	Entered By	CEWB No. (If any)	Multi Veh.Info (If any)	Portal
Road	CG04QM6237	Raipur	02/01/2026 06:29 PM	22AACCA0569P1ZL	-	-	1

851625106978

Annexure XXXI: On Site Emergency Plan

DIRECTORATE, INDUSTRIAL HEALTH & SAFETY, RAIPUR (C.G.)

Block-III, 2nd Floor, Indravati Bhawan, Naya Raipur (C.G.)

e-mail - dihscg@gmail.com
Ph. No. - 0771-2442360

Application No. : **118097** Raipur, dated : **12/03/2025**

To,

The Occupier,
M/S ALOK FERRO ALLOYS LTD.
M/S ALOK FERRO ALLOYS LTD.PLOT NO. - 458/1-459, URLA INDUSRTIAL COMPLEX, URLA, RAIPUR (C. G.)

Sub :- ON-SITE EMERGENCY PLAN.

Ref :- Your documents on the subject dated 15/01/2025

Please be informed that documents (placed below containing pages (92 duly verified by the occupier) in which the occupier has disclosed the information related to hazards at his installation in compliance of the section 41-B of the factories Act, 1948 and which also describes his On-Site Emergency Plan (After supplementing certain modification by the MAHC Cell distinctively marked on the plan) is hereby notified final with the following stipulations :-

(i) That in the case any relevant information as required under the section 41-B of the Factories Act, 1948, If has not been disclosed this notification does not provide any exemptin in this regard and the occupier himself is liable for concealing the information.

(ii) That the documents will be subjected for review :-

(a) Generally after a period of two years from the date of issue of this order.

(b) During any intervening period of two years if it is instructed to do so by this cell.

OR

(c) Invariably, when any change in the plant, machinery, Building, Structure, substance, storage or the manufacturing processes/operations is intended by the occupier or his factory persons;

(iii) That the documents will have to be reviewed (as above) always in consultation with this cell and it will be occupier's liability to provide reasonable time for review and get notified final for further period;

(iv) That suitable training/mock-drill/exercise be arranged at the factory to make all concerned familiar with their duties/ responsibilities as outlined in the on-site emergency and be well trained to act accordingly at any emergency and save lives as well as the property:

(v) That reports/ observation of mock-drills/rehearsal or action at any emergeny situation that might have arisen, shall be furnished by the factory management to this cell to assess efficiency of the plan.

(vi) The necessary copies of this plan or part thereof be got multiplied by the factory management and provide to all concerning statutory authorities and other persons and also placed at designated emergency control centre in an accessible place to all concerned in the factory.

(vii) That in case of failure to comply with the stipulations or the relevant provisions of the law, not with standing legal proceeding to which the occupier may be subjected, he himself will bear (for any suspension/refusal rejection of his licence to work the factory) the liability of such action.

Encl.:- As above

Chief Inspector of Factories
Govt.of C.G. Raipur

REVISED ON SITE EMERGENCY PLAN AS ON 2024

OF

M/S ALOK FERRO ALLOYS LTD.

PLOT NO.- 458/1-459

URLA INDUSTRIAL COMPLEX

RAIPUR (C.G.)

PHONE NO. – 0771- 4082850, 860, 870
Fax- +91-771-4082880
E-mail : fkhan2409@gmail.com

SUBMITTED BY
SHRI AJAY DUBEY

DIRECTOR

I N D E X

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CHAPTER - 1

NECESSITY, OBJECTIVE AND INTRODUCTION OF EMERGENCY/ACTION PLAN:

1.1 NECESSITY

Developments and advancement in science, have made impossible to possible. A few decades back the thought And ideas of human beings which were dreams have now become reality. Man has been continuously conquering over nature. This advancement in science will continue and shall continue to bring more & more comforts and amenities to human life by adding new and unknown dimensions to technology. Similarly in Industrial Development man has made tremend -ous advancement from first day of inventing to generate and use fire. Several other sources of energy like Petrol, Gas, Electricity. Nuclear fuel have been invented . All these sources of techno -logy, Science And Energy , on one side brings happiness and comforts, when used properly and wisely, but on the other hand do create agonies and disasters if misused , mishandled, neglected, indiscriminately used or carelessly used. It has says that EVEN A SINGLE ACCIDENT FAIL ALL WISE PLANNING.

The Industrial accident which took place in Union Carbide in Bhopal and in petroleum Depot of BPCL , Raipur and Bhilai served as a tragic warning to all concerned with the Planning Location creation and regulation of factories handling, processing manufacturing, Storing Transporting of hazardous highly inflammable and explosive substances. Even after taking All the precautions if any emergency is created then one should have mean and plans to tackle it, and in turn minimize losses to plant and machinery, buildings and inhabitants inside/around the factory premises.

In spite of several efforts to prevent the accidents in an industry, the possibility of occurrence of any accident cannot be ignored, that may result adverse effect on the people, environment and property, considering a aspects of possible hazards and safety precaution to prevent them further planning has been made to face any major accident in a well planned manner so that adverse effect may minimise with the help of ON-SITE and OFF-SITE relevant authorities and public.It is with the concept that emergency planning becomes necessary. This plan will certainly help in reducing all kinds of damage and hazard.

1.2 OBJECTIVES OF EMERGENCY PLAN

The main objectives of the Emergency & Disaster control Plan is, to create a procedure and infrastructure based on the combined resources of the factory as well as external Services, with a view to minimize damage and losses due to any type of emergency and disaster situation may arises in the plant premises, which may directly or indirectly affect the employees, the property of the company and the local community.

The objectives may further be classified as under :

a) To identify casualty, damage and to carry out the rescue operation and treatment to the Persons affected by the emergency.
b) To safeguard other persons not affected by the emergency so far.
c) To minimize, damage to the property and to the environment at a zero level.
d) To initially contain the impact of incident and ultimately bring the incident under control.
e) To provide authentic information to outsiders and the media.
f) To accomplish rehabilitation of the affected persons, if any.
g) Preservation of relevant records.
h) To investigate into the causes of emergent situation with a view to prevent its reoccurrence in future.

1.3 INTRODUCTION

The Emergency plan/Action Plan/Disaster control plan is nothing but AN ACTION PLAN FOR HANDLING EMERGENCIES IN AN INDUSTRY.

The plan is a statutory requirement under the Indian Factories Act-1948 with an intention to arrange and Gear up the facilities to combat the emergency if any , in an effective way to ensure minimum possible loss to the human beings and to the properties involved and, to make the situa -tion in order with minimum possible time period.

In view of the above facts this Revised On-Site Emergency Plan manual, has been prepared by M/S ALOK FERRO ALLOYS LTD., (AFAL) Medium Scale Unit set-up to manufacture Ferro Alloys and for Generating Power (8.1 MW), in Urla Industrial Complex, Raipur (C.G.)

This plan has been prepared in brief to provide all information regarding dangers,Including health hazards and the measures to overcome, such hazardous arises from the exposure or handling of the material or substances in the manufacturing, transportation, storage, transportation and other process, workers employed or engaged in the factory and to the general public living in the vicin -ity of the area the safety measures required to be adopt in the event of the accident taking place. It is hoped that this emergency plan shall further help to take precautions to maintain the unit most hazard free and ideal one.

We are highly thankful to all Departmental personnel who guide and help us to prepare this Onsite Emergency Plan. We also thankful to Shri Prakash Upadhyay (Chartered Engineer 9424202720 who give us his valuable time and suggestion to prepare this Onsite Emergency Plan.

CHAPTER - 2

INTRODUCTION OF M/S ALOK FERRO ALLOYS LTD..

2.1 INTRODUCTION

Besides many more Industries running in this region based mainly on easy availability of raw material, manpower etc. by virtue of that the Directors of the firm has establ shed a medium scale unit in the year 1995 After successful running for several years the unit has stopped its production due to crises of electricity resulting increased production cost of Ferro Alloys.

After 2-3 years again due to liberation in Govt. policy, unit started its production from 2002. The directors of the Firm has expand their existing unit and to minimize the cost of production by establishing thermal Power Plant for generation of 8 MW, in the year 2005.

Company expanded the unit in 2012-13 by establish one more Furnace in SAF Division of capacity 1x 3.5 MVA, thus Total capacity of SAF Division is 14,496 TPA with 3x3.5 MVA Furnace. Also be the directors of the Company decide to established Solar power Unit for generating Power for in house use of capacity 100 KW (0.1 MW), thus Total Power Generation is now- 8.1 MW.

The Company has extensive experience of manufacturing and Trading, with the state of the Art Manufacturing facilities and Quality Testing facilities for the Production of Ferro Alloys.

Unit is registered with all State Govt. departments as well as with Industrial Health & Safety vide Licence No.- **1499/1499/B-1,B-5/RPR/2m(i)**

2.2 NECESSITY TO ESTABLISH SUCH TYPE OF UNIT

In the 10th Plan the consumption of Ferro Alloy in our country is about 3.5 lacs MT which is much more the consumption of Alloy castings during the 8th & 9th Plan. It has been seen that the consumption rate of Alloy castings with sponge iron is increased by 20-30%. At present there are only 9-10 Industries which are producing Ferro Alloys are running in this region, nos. of old Units get closed due to increased rate of electricity supplied by CSEB. That's why to meet the increased rate of consumption of Ferro Alloys and to minimize the cost of production, Directors have expanded their existing Factory by establishing eThermal Power Plant under the same name and title as M/S ALOK FERRO ALLOYS LTD., Plot No.- 458/1- 459, in Urla Industrial Complex, Raipur (C.G.)

Various type of Industries which mainly consume the Steel Castings are:-

Steel Rolling Mills, Engineering Industries, Cement Industries, Power Generation Centers Industrial Machinery MFGRS., Automobile Industries, Auto Castings, Pump castings and other Misc. Industries.

2.3 OCCUPIER OF THE FIRM

2.3.1 PROMOTERS

The company was promoted by Shri Vinay Agrawal who is the Director of Unit Under their active guidance the company has been continuously expanding and diversifying its activities and has recorded substantial growth. Other Director's list is enclosed herewith.

2.3.2 BOARD OF DIRECTORS

Following personnel are the Directors of the Firm

1. SHRI VINAY AGRAWAL DIRECTOR
2. SHRI T. BOSE DIRECTOR
3. SHRI AJAY DUBEY DIRECTOR

2.3.3 OCCUPIER & Factory Manager OF THE UNIT

SHRI AJAY DUBEY (DIR.)
Sapphire Greens, Raipur (C.G.)
Mail Id : ajay.dubey@hiragroup.com
Mob No. - -097555-22009, 98271- 22000 Phone No.- 0771- 4938401(O),

2.3.4 Asst. WIC OF THE UNIT

SHRI FIROZ KHAN (GM & Asst WIC)
Nurabni, Chowk , Rajatalab, Raipur (C.G.)
M0b- 094252-09567

2.4 BRIEF WRITE-UP ON M/S ALOK FERRO ALLOYS LTD.

1.	FACTORY LICENCE NO.	**1499/1499/B-1,B-5/RPR/2m(i)**
2.	MANUFACTURING OF	**FERRO ALLOYS AND GENERATION OF POWER (8 MW + 0.1 MW)**
3.	INSTALLED CAPACITY * FERROALLOYS * POWER GENERATION	 **14,496 TPA (BY 3 SAF OF 3.5 MVA EACH)** **8.0 MW (BY FBC BOILER & TG)** **0.1 MW (BY SOLAR ENERGY)**
4.	TECHNOLOGY FOR * FERRO ALLOYS * POWER GENERATION	 **SUBMERGED ARC FURNACE** **THERMAL POWER BY USING FBC BOILER & TG** **SOLAR POWER BY CONVERTING SUNLIGHT INTO ELECTRICITY**
5.	POWER(ELECTRIC GENERATION & COSUMPTION	**8.1 MW (8.0 MW +0.1 MW)**
6.	ENGAGED MANPOWER MEN WOMEN	**BELOW 250 Nos.** **149 Nos.** **05 Nos. (engaged for housekeeping job)**
7.	WIND DIRECTION	**SOUTH WEST to NORTH EAST (NORMALLY)**
8.	ECC (EMERGENCY CONTROL CENTER)	**IN THE OFFICE NEAR CHAMBER OF DIRECTOR**
9.	ASSEMBLY POINT	**GROUND NEAR GATE No. 1 OFFICE HAS BEEN MARKED AS ASSEMBLY POINT.**

CHAPTER – 3

ADDRESS, LOCATION AND PLANT LAYOUT

3.1 ADDRESS/LOCATION OF THE FACTORY:

Factory is situated in Urla Industrial Complex/area which has been developed in between Ring Road No.- 2 & NH 49 (Raipur Bilaspur Road) it is about 8 Km. From Raipur City. It is well connected with Bombay - Hawrah Rail line and NH 6 & NH 49. The site is not located in densely populated area and the plant is scattered in around 18.08 Acres Land.

3.1.1 Factory/Office Address

M/S ALOK FERRO ALLOYS LTD.
PLOT NO. –458/1- 459
URLA INDUSTRIAL COMPLEX, URLA
RAIPUR (C.G.)
Phone No.- 0771- 4082850, 860, 870,
FAX No. - 0771- 4082880,
E-mail- fkhan2409@gmail.com

3.2 PLANT LAYOUT

The overall plant layout is divided into two parts viz. (The Plant Layout is shown as in attached PDF sheet)

A) MAIN PLANT AREA

The plant is divided into Three divisions viz.

(1) FERRO ALLOYS DIVISION
(2) POWER PLANT DIVISION
(3) SOLAR POWER UNIT DIVISION

1). FERRO ALLOYS DIVISION

This Division of Plant may further be subdivide into Four subdivisions viz

(i) RAW MATERIAL HANDLING YARD/SHED

In this section of Plant Raw material like Coal, Iron Ore, Briquete and other alloy are stored and feed Through conveyor and skip charger to the furnaces or from Storage Bin/Day Bin after batching, Nos. of worker ordinarily engaged/employed in this section are 12-16 Nos.

(ii) FURNACE & CASTING DIVISION

This section of Plant consist Submerged Arc Furnace , Casting Area, Feeding Section, Hydraulic section and Control Room. Nos. of worker ordinarily Engaged/Employed in this section are 20-25 Nos.

(iii) FINISHISHING AND DISPATCH

Tapping beds where molten metal is tapped either in molds or in prepared sand boxes. Casted materials are carried to finishing section by means of EOT crane. In this section chipping knocking finishing etc. jobs are performed and after making proper gradation Finished Material after weighing and packing dispatch to the market. Nos. of worker ordinarily Engaged in this section are 40-50 Nos.

(iv). POLLUTION EQUIPMENT

Smoke/Flue gases generated in furnace section are fluid in atmosphere after passing through these Pollution Equipment consist of Bag filter. ID Fan, Chimney etc. to make the working area and atmosphere pollution free. Nos. of worker ordinarily engaged in this section are 2-3 Nos.

2). POWER PLANT DIVISION

This Division of Plant may further be subdivide into Five subdivisions viz

(i) RAW MATERIAL HANDLING YARD/SHED

In this section of Plant Raw material like Coal, CharCoal, etc. are feed through storage Bin to Boiler to generate the Steam. Nos. of worker ordinarily engaged/employed in this section are 10-12 Nos.

(ii) COOLED WATER POND AND DM PLANT

This section of Plant raw water stored in pond is treated to use in boiler for producing Steam, also be the condensed steam is recycled to the Boiler for reused. Cooled water cycled to different Plant & m/cs to keep them cool during moblisation and returning hot water is cooled in mist cooling tank for reuse. Nos. of worker ordinarily engaged in this section are 08-10 Nos.

(iii) TG BUILDING AND CONTROL ROOM

This Section of Plant consist Steam Turbine coupled with Turbo generator by which Electricity is generated and for governing them, Control Room Building is there. Nos. of worker ordinarily engaged/employed in this section are 08-10 Nos.

(iv) SWITCH YARD/TRANSMISSION SYSTEM

In this section of section of Plant a well equipped Transmitting sub-station is situated from where Generated Electricity is wheeled to different section of Plant for captive use. Nos. of worker ordinarily engaged/employed in this section are 04-06 Nos.

(v). ESP (ELECTRO STATIC PRECIPITATOR) & CHIMNEY

Ash inert in flue gases are arrested in ESP, thus this section of Plant is used as pollution control system, after passing the flue gases from ESP are blown in atmosphere through ID Fan and chimney. Nos. of workers engaged in this section are 2-3 Nos.

(3) SOLAR POWER UNIT DIVISION

This Division of Plant consist No. of Solar Panel (Concentrated Photo Voltaic (CPV) Panel) Mounted on platform to receive the sun's radiation, to convert it into electricity and will transmit it to the control room. In the control room, the Direct Current or DC will be converted to AC/ Alternating Current. Excess Generation of Electricity is stored in No. of Rechargablen batteries To ensure the Power in absent of Sunlight.

All working area, sections, etc. of these sub-division are well connected to each other through walkways & passages. The main road from entrance gate approaches all round inside the Plant. In case of emergency, if arises, at any location, the people working at that location can easily rush to the entrance gate without any obstacle, Emergency egresses are shown in Layout Plan.

(B) ADMINISTRATION BUILDING, OFFICES & REST ROOM;

Since the area mentioned as (b) is not engaged with any manufacturing process or stacking of raw materials and finished products, here is no risk and danger in this area. Yet, the impact of any emergency, if arises at main plant, may effects this area. Hence, this area is also incorporated in the On-site Emergency Action Plan. Nos. of worker ordinarily engaged/employed in this section are 10-12 Nos.

3.2.1 NEARBY INDUSTRIES

There are some more Industries producing Steel products, Rolling Mill, Casting Unit etc. are located in near by, Out of these industries, some of them are of Hazardous Category, In case of any accident like Fire/Explosion/Gas Release may commit in these Units then there may be possibility that, effect of such calamity may also affect our unit but not in full extent. Such hazards are detailed in Chapter-7. The Nearby/adjacent Units are listed below with them we have mutual coordination to help each other at the time of any emergency arises. Telephone/Mobile Nos. of Occupier/Fact. Manager for contacting them and the major facility available in their units are listed below :-

Sl. No	Name Of Near By Factory	Distance From Our Unit	Person to whom make contact	Contact telephone /Mobile Nos.	Facility available In Factory to over-Come emergency
1.	M/S HIRA STEEL & POWER LTD	1.0 KM	Occupier /Manager	0771-3092360	Trained Emergency Team Equipped with PPE's Sufficient Fire Extinguisher &With Fire Tender (Tanker with Pump)
2.	M/S R.R. ISPAT (A Unit of Godawari Power & Ispat Ltd.)	0.5 KM	Occupier /Manager	0771-4082350	Trained Emergency Team Equipped with PPE's Sufficient Fire Extinguisher &With Fire Tender (Tanker with Pump)
3.	M/S HIRA FERRO ALLOYS LTD. UNIT-2	0.8 KM	Occupier /Manager	0771-4082450	Trained Emergency Team Equipped with PPE's Sufficient Fire Extinguisher &With Fire Tender (Tanker with Pump)

3.2.2 NEAR BY POPULATION/ HABITATION

Since, there is no any other hazardous chemicals/material except as listed in Chapter stored or manufactured in the plant nor any highly inflammable material is stacked in the plant in a large quantity. The Range of Physical Propagation may limited up to 0.2 KM.from the Factory Site. Thus there is no risk and danger to the local people, residing in this area and in nearer villages. Villages surrounding the Factory are as follows:-

CIVIL POPULATION AROUND 5.00 Km. OF AFAL

	VILLAGE NAME & DISTANCE FROM FACTORY (APPROX)	POPULATION (APPROX.)
1.	URLA (1 KM)	8,000 - 9,500
2.	BIRGAON (2.5 KM)	10,000 - 12,500
3.	BHANPURI (2.5 KM)	19,000 - 21,000
4.	SARORA (3.0 KM)	8,000 - 9,500

3.2.3. AMENITIES AVAILABLE IN NEARBY TO THE PLANT

Amenities like School, Colleges, Bazar etc are about at a distance of 4 KM apart, i.e. in Birgaon and Bhanpuri means to say in Raipur City, Petrol Pumps are on N.H.200 about 2.5 KM apart. Small Hotels are in Urla and Birgaon 2 KM apart. Clubs are in city Raipur. Bus Stop-Birgaon and Nearest Railway Station-Urkura (P.H. Passenger Halt)) are at a distance of 2-3 KM. Police Station is Urla about 1 KM apart. Places of Worship are at a distance of 2 KM to 5 KM from the Factory.

3.2.4 PLANT LAYOUT & KEY PLAN

Note:- Layout Drawing of Plant with marking of Hazardous area ECC and Assembly Point Route of Escape etc., is attached as PDF Sheet separately.

CHAPTER - 4

ORGANISATION SET-UP AND KEY PERSONNEL OF M/S ALOK FERRO ALLOYS LTD.

4.1 Name of Key Personnel

Occupier	: SHRI AJAY DUBEY (CIC)
Factory Manager	: SHRI AJAY DUBEY (WIC)
GM	: SHRI FIROZ KHAN (ASST. WIC).
DGM (FERRO- O&M)	: HANUMANTA BADDI
DGM (POWER-O&M)	: SHRI PRAMOD CHANDRAKAR
Manager (QC)	: SHRI K,P. TIWARI
Manager (Instru.)	: SHRI VIKASH PRASAD

4.2 ORGANISATION CHART :

SHRI AJAY DUBEY (DIR) (CIC)
:
SHRI AJAY DUBEY (DIR) (WIC)
:
SHRI FIROZ KHAN (GM) (WIC)
:

: SHRI PRAMOD CHANDRAKAR	: SHRI K,P. TIWARI	: SHRI VIKASH PRASAD
: AGM (O&M)	: MANAGER (QC)	: AGM Manager (Instru.)

Special Trained Person from Key Personnel & Member of Crew Party

: SHRI HANUMANTA BADDI
: SHRI SANKET SHARMA
: SHRI TUSHAR SAHU
: SHRI MOTI LAL SAHU
: SHRI SUNNY JOSEPH
: SHRI VEMAN SAHU
:

Medical crew & First Aid Trained Person : DR. SANJAY SHUKLA
: SHRI MOTILAL SAHU
: SHRI SUNNY JOSEPH

CHAPTER - 5

MANUFACTURING PROCESS OF M/S ALOK FERRO ALLOYS LTD.

5.1.1. Ferro Alloy Division :- 3 Nos. Submerged Arc Furnace of 3.5 MVA is used for melting the Alloys and casted in Sand bed Mould. After chipping, Knocking and grading dispatch for sale .

5.1.2. Power Plant Division- Electricity generation at our Thermal Power Plant is by burning Coal , Char and Dolo-Char as a Fuel for generating Steam, and running a Turbo Generator by that Steam. In other words, it is merely a chain of energy conversion as follows:-

A. Chemical energy of fuel is converted to heat energy to steam.

B. Heat energy of steam is converted to mechanical or rotating energy of rotating wheel called turbine.

C. The mechanical energy of turbine is converted to electrical energy in a generator. This complete energy conversion cycle is ultimately providing the Electricity. demand/ requirement.

5.1.3. Solar Power Unit Division- In this Division of plant sun's radiation/Sunlight absorb by CPV and this Solar Energy converted into electricity.

5.2 MANUFACTURING PROCESS OF FERRO ALLOY DIVISION

Main technology involved in the production of Ferro Alloy (Ferro Manganese Ferro Silicon, Ferro Chrome etc.) is as follows.

5.2.1 The manufacturing process identified for this unit is one which is well established and common, and presently being followed by majority of similar manufacturing units mostly in Large or medium scale sector.

As per present globally accepted process most of Ferro Alloys are produced in submerged Arc Smelting Furnace (A 3-phase Furnace) power to the furnace is supplied from Furnace transformer to Furnace through 3 Nos. soderburg Electrodes.

Raw material Samples of Mn Ore, Coke, Dolomite is taken from raw material storage then tested for its chemical composition and noted. Before preparation of charge, necessary Ingredients by weight are added through Day Bin.

Batching charge is fed in the Furnace, Arc is produced by electric. Gets heated up due to I2R effect of high current passing through the charge from the three Electrodes At certain temperature about 1500~C Chemical reaction take place, Carbon present in the charge reacts with the Oxides of manganese, Oxides of Iron and Oxides of Silicon, Thus Metallic Manganese, Iron and Silicon are smelted and separated from the ores. Unreacted materials, impurities and residual lower Oxide, form slag. Metal and Slag in molten form Gets collected at the bottom of Furnace. These are tapped out from Tap Hole provided at bottom side of furnace after each interval of 2 Hours. Tapped Molten mass consist of mixture of Metal & Slag. Metal is separated out from slag by gravity separation method.

Production process is continuous. Load of the Furnace during smelting and tapping period more or less remains same.

Following Chemical reactions take place:

$3Mn_2O_3 + C \dashrightarrow 2Mn_3O_4 + CO$

$Mn_3O_4 + C \dashrightarrow 3MnO + CO$

$MnO + C \dashrightarrow Mn + CO$

Oxides of manganese present in the Ore get to reduced Metalic manganese with Carbon of reducing agents and Carbon Mono-oxides is liberated.

High Manganese slag is also used as raw material for extraction of Manganese is present in the form of MnO and chemical reaction is as under:

$MnO + C \dashrightarrow Mn + CO$

Iron is present in Manganese Ore in Dolomite in Oxide form as Fe_2O_3.

It gets reduced to Iron with following chemical reaction

$Fe_2O_3 + 3C \dashrightarrow 2Fe + 3CO$

Silicon is present in the Raw Material, in the form of SiO_2, SiO_2 is present in Manganese ore, reducing agents high Mn Slag, Quartz etc. Silicon is smelted from SiO_2 as per following reaction :

$SiO_2 + 2C \dashrightarrow Si + 2CO$

Thus in smelted molten metal, Mn, Fe, Si are present in the molten Form. Metal so smelted Is called Silicon Manganese. The metal content some carbon in dissolved state as carbides of Metal. Certain amount of Phosphorus is also present in the Metal. This is smelted from Phosphate present in the Manganese Ore and Reducing agents.

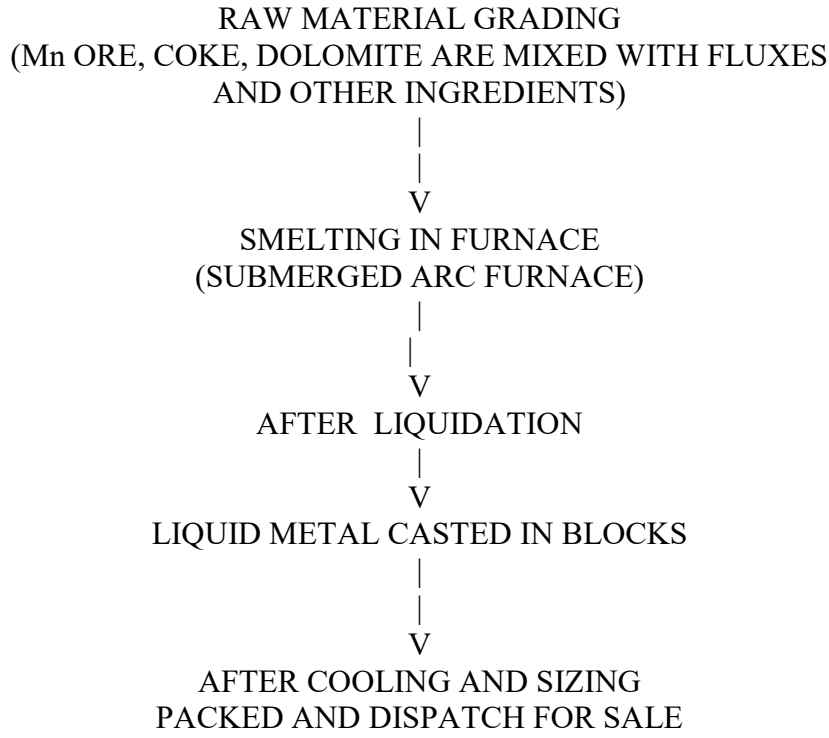
It may be noted that entire oxide of Manganese do not get reduced to Metalic Manganese.

Certain amount of manganese in MnO form remains unreacted and forms a part of slag. Similarly, certain amount of SiO_2 remains unreacted and forms a part of slag. Dolomite/Lime Stone is added to provide proper fluidity to slag. Hence CaO and MnO of these fluxing materials are also a part of slag.

Thus during smelting of Silico Manganese (Si Mn), Metal produced contains Mn, Si, Fe and C& P as impurities. Slag consist of MnO, SiO_2, Al_2O_3, CaO, MgO etc.

Product is separated on its cooling and after chipping, knocking and sizing Finished Product Ferro Alloy /Ferro Manganese, Silico Manganese, Ferro Calcium are dispatch for Sale.

5.2.2. PROCESS FLOW CHART OF FERRO ALLOY DIVISION



5.3 CAPTIVE POWER PLANT DIVISION

Electricity generation at our Thermal Power Plant is by burning Coal, Coal Fines, Char, Dolo-Char and by the Inert Heat of Flue Gas as a Fuel for generating Steam, and running a Turbo Generator by that Steam. In other words, it is merely a chain of energy conversion as follows:-

A. Chemical energy of fuel is converted to heat energy to steam.

B. Heat energy of steam is converted to mechanical or rotating energy of rotating wheel called turbine.

C. The mechanical energy of turbine is converted to electrical energy in a generator.

This complete energy conversion cycle is ultimately providing the Electricity.

5.3.1 PROCESS FOR GENERATING POWER/ ELECTRICITY

The Power plant consists of 1 No. 8 MW single cylinder single stage uncontrolled extraction, fully condensing type system turbine, designed, manufactured & supplied by M/S TRIVENI ENGG. LIMITED, BANGLORE.The Turbine inlet steam Pr & Temp are 65.0 ATA & 485`C respectively.

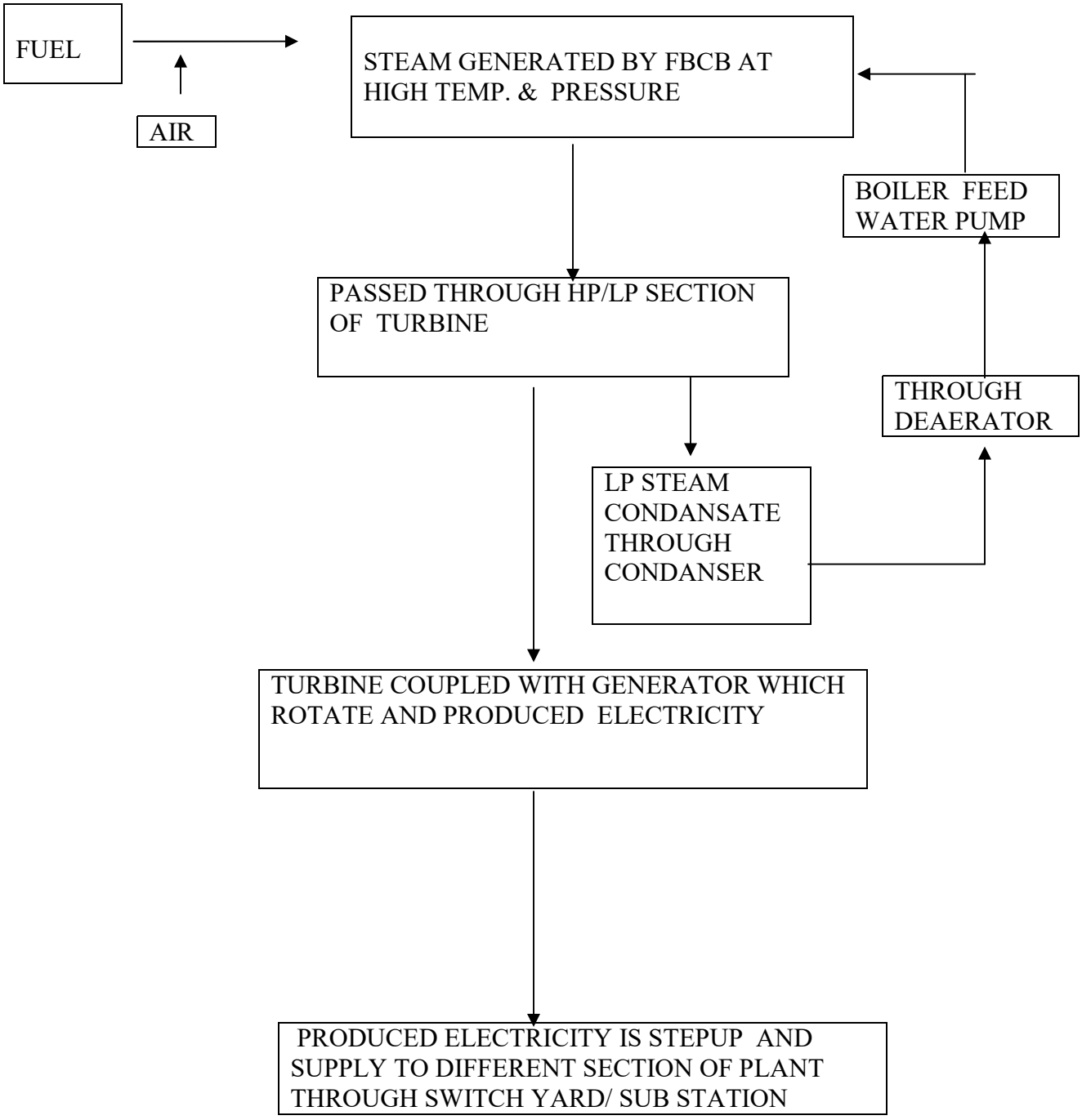
We will use Coal Fines/Dolochar/Char coal having GCV 3500 KCal/Kg. as a fuel from stock yards feed to the raw feed hopper by means of conveyors, and then for fludised Bed Combustion (FBC) of Boiler Thermax make Pune to generate super heated steam @ 38 TPH at 66 Kg./Cm2, 490`C.

The Bleed quantity of 3.0 TPH at 3 Ata is taken to detector for removal of dissolved Oxygen in the boiler feed water, where make up water is added to take care of any loss of water in the cycle.

The balance of 35 TPH of high pressure steam will flows through LP section of Turbine and then to condenser for condensing. This super heated steam will drive steam turbine coupled with 8 MW, 11KV generator. So electricity will be generated at 11 KV, part of it about 6 MW will be diverted to Ferro Alloy Division of Plant and rest infirm will be used in Power Plant. Even though the balance quantity is step up with help of power transformer to 33 KV in sub-station and then switched to C.S.E.B. grid system by means of switch yard.

During the process of combustion of Coal/Char coal in FBC, Ash will produced, most of the ash will be carried along with the flue gas as fly ash. A very small percentage of ash about 05% will be drained from bottom of FBC furnace. As we provided ESP unit in path of flue gases, most of the fly ash will get collected and the clean flue gas with a dust loading of less than 150 MG/N m3 will be diffused to the atmosphere through chimney. Fly Ash will be transported pneumatically to the Ash Silo. The Fly ash will furtherly used to mfg. Ash Bricks.

5.3.2 PROCESS FLOW CHART FOR POWER PLANT DIVISION

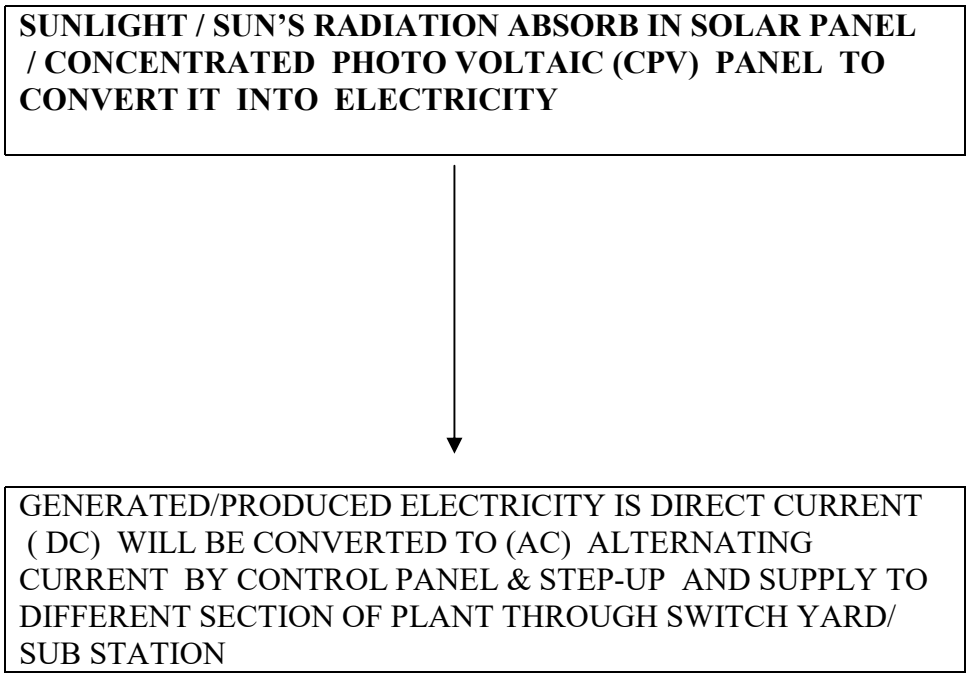


5.4 SOLAR POWER UNIT DIVISION

5.4.1 PROCESS FOR GENERATING POWER/ ELECTRICITY

This Division of Plant consist No. of Solar Panel (Concentrated Photo Voltaic (CPV) Panel) Mounted on shed of ferro division to receive the sun's radiation, to convert it into electricity and will transmit it to the control room. In the control room, the Direct Current or DC will be converted to AC/ Alternating Current. Excess Generation of Electricity is stored in No. of Rechargable batteries to ensure the Power in absent of Sunlight.

5.4.2 PROCESS FLOW CHART FOR POWER PLANT DIVISION



CHAPTER - 6

SALIENT FEATURE OF M/S ALOK FERRO ALLOYS LTD.

6.0 PLANT AND MACHINARY

The basic process consist of following major equipments in its different Section

01 FERRO ALLOY DIVISION

Manufacturing of Ferro Alloys – By submerged Arc Furnace .

Ferro Alloys will be proposed to mfg in submerged Arc furnace – 3 x3.5 MVA the capacity will be 14,496 MT per Annum.

Comprising of (a) Raw Material Handling Yard and Storage Bin.
(b) 3x 3.5 MVA Furnace with Charging and Tapping Facility
(c) Pollution Equipment
(d) Chipping, Knocking, Packing and Dispatch Section.

02. POWER PLANT DIVISION

Captive Co-generation of Electrical Power - By FBC Boiler we are producing 48 TPH Steam by which generating 1x8=8 MW power.
Comprising of

(a) FBC Boiler (b) Turbine/Turbo Generator
(c) ESP & (d) Switch Yard & Transmission system.

03. SOLAR POWER UNIT DIVISION

Captive Co-generation of Electrical Power – By conversion of Sun's radiation in Electricity. Our this Unit produce 100 KW Electricity comprising of

(a) CPV Concentrate Photo Volainic Panels/Solar panels
(b) Control panel/invertors for converting DC in AC.
(c) Rechargable Batteries for storing excess power and supplying in absence of sun light.

6.1 FERRO ALLOY DIVISION

6.1.1 FURNACE TRANSFORMER

There are Transformer of capacity 3 x 3.5 MVA used to produce Arc in Submerged Arc Furnace.

6.1.2 ARC FURNACE

There are 3 Nos. Arc Furnace of capacity 3.5 MVA & 3x 6 Mts dia is used for smelting the Grade specially mixed and charged in it Temp. about 1500`C is produced inside the furnace by producing Arc by carbon Electrode.For lining the furnace acidic/basic refractory bricks are used depending upon the grade of Ore/Concentrate to be smelted.

:

6.1.3 COKE/COAL HANDLING SYSTEM

It consist of Ground hopper and Conveyor System, Coke/Coal is transported from mines of required grade and after screening and briqueting stored in Day bin for day to day use.

6.1.4 RAW MATERIAL HANDLING SYSTEM

Depends upon the charge to be melted as per the requirement Ferro Alloys, Mangenese, ,coal, Briqueteetc are stored in yard and through Ground Hopper, conveyed to Day bin for storing by conveyors

6.1.5 STORAGE BIN/DAY BIN

Since coal, coke is used in huge mass in Arc Furnace, in different quality depends upon Charge to be melted, So for day use it is stored in Bins, which are 12 Nos. From day bins coal along with Ore/Concentrate are taken in bucket and with the help of EOT Crane/Skip Hoist charge in Furnace.

6.1.6 EOT CRANE AND SKIP HOIST

There are 4 Nos. EOT Crane, out of which one Single Girder Crane of 2x2 MT capacity used for charging Raw material in Furnace and 2 No. Double Girder of capacity 10 MT used for Finished Product and Slag loading.

6.1.7 BLOWER

The entrapped dust is separated by means of blowing the air through Raw materials and Finished Product.

6.1.8 AIR COMPRESSORS

It is required to supply compressed air to machines, operated pneumatically and also for cleaning out risers and runners of moulds.

6.1.9. GRINDERS

Used for removing the runners and risers or any other extra material sticking to the castings. It is also used to fettle the castings.

6.1.10 D.G. SET

Diesel Generator sets are prop. to use to produce Electricity at the time of power cut-off of capacity 1X125 KVA, to meet the Emergency Services

6.1.11. SUB STATION

Electricity supply to this division by a small Sub-Station is situated within Factory premises bounded by barbed wire fence as per specification. Transformers of capacity 5MVA are there.

6.1.12. WORKSHOP

A small Workshop consist One Lathe m/c, One Shaper m/c, One Drill m/c, One Grinder & Two Welding m/c are there for the maintenance of machine parts used in this factory.

6.1.13 POLLUTION CONTROL DEVICE AND CHIMNEY

A well equip and best suited Pollution control Device are there to arrest the Carbon particle entrapped with fluid smoke, consist 2 Nos. Chimney with Blower

6.1.14. WATER HYDRANTE POINT AND FIRE EXTINGUISHER

To meet the fire hazard if occur, water hydrant Pipe line of 4" dia is laid all round with hydrant Points 04 Nos. with pipes and Nozzles fire box and fire extinguishers about 08 Nos. are provided inside and outside the Factory building. Also be the sand bucket stand 12 Nos. are placed near all working sheds. Beyond it water sprinkling in filling/storage shed, Lorry Platform is provided.

6.1.15. COOLING TOWER

During the process of Casting cooled water is circulated through Furnace which get hot during the process and cooled in cooling Tower.

6.1.16. LABORATORY EQUIPMENTS

In the laboratory some chemical/physical properties of manufactured Steel Products, Ingots, Forged Balls etc are tested such as % of carbon & hardness and Density. Hence the equipments for performing these tests are keep in laboratory.

6.2 POWER PLANT DIVISION

6.2.1 COAL HANDLING SYSTEM

Coal from mines and washeries are imported and stored in shed/ Yard from where feed to Boiler FBC section after crushing grading etc as per requirement by means of conveyor and Day Bin.

6.2.2 COAL/DOLOCHAR/CHAR FIRED F.B.C. BOILER -1 NO.

A High pressure Coal/ Dolochar/Char Fired Boiler which converts the chemical energy of fuel into heat energy of high temperature, high pressure steam. The fuels (Char, Dolo-Char and Coal Fines) are burned in a FBC Boiler to generate 38 T/hour steam at 66 kg/cm2 pressure and 490`C Temperature.

6.2.3 STEAM TURBO GENERATOR SET OF 8 MW

This mainly consist of

A) A 'Turbine' which is driven by the Steam feed to it. It converts heat energy into mechanical energy. The Turbine is driven at minimum 7545 RPM for generating power. Reduction Gear is converting 7545 RPM to 1500 RPM for Generator.

B) A 'Generator' which is driven by the Turbine by means of which it generates "Electrical Power" by converting mechanical energy into electrical energy.

C) A 'Condenser' which condensate the steam in water, after it work on Turbine.

D) 'Boiler feed pumps' it pumps back the condensed water in the condenser back to Boiler along with water from D.M. Plant for further production of Steam.

6.2.4 ELECTRICAL SUB STATION AND SWITCH YARD

There is a Sub Station and Switch Yard from where the generated electricity is diverted to Ferro Alloys Furnace and balance infirm quantity step up and then switched to CSEB Grid line.

6.2.5 AIR COMPRESSOR

Air from atmosphere is drawn and compressed it for control and instrumentation purposes and other miscellaneous plant use.

6.2.6 D.M. PLANT/WATER TREATMENT PLANT

Water from 20 Bore well with about 10" yield (total) are pumped and collected after pretreatment in under ground and over head tanks of capacity 2900 cum. Part of it is chemically treated by a process called 'Deminaralisation Process' in DM Plant, (DM Plant of 5.0M3/Hr capacity) such water is free from any salts and ions and fit for Steam generation and are separately stored in D.M. water tanks.

6.2.7 ASH HANDLING PLANT/SYSTEM

In the FBC Boiler ash particles formed due to combustion of Coal/Dolochar are present in flue gases 95% of the Ash called as Fly Ash is arrested by "Electrostatic precipitators" (it is also known as Main Pollution Control Device). The remaining 05% of ash which is called 'Bottom Ash' collects itself in the bottom of the boiler. Thus the produced Ash will be collected and removed through Ash Handling System and disposed off to end users like sodium silicate manufacturer bricks manufacturer etc.

6.2.8 POLLUTION CONTROL DEVICES

For controlling the Air pollution the main device "Electrostatic Precipitator" is there by which fly ash is retained to defused in Air, only Flue Gases coming out from Boiler (due to combustion of Coal) by means of Chimney/Stack 73M height) is diffused in atmosphere.

6.2.9 COOLING SYSTEM

Cooled water from cooling Pond is pumped to the condenser coil where it condensed the steam. The returning water get hot which is again pumped to the cooling pond for cooling. We have provided a new device for cooling returning Hot water. Hot water is sprinkled in atmosphere through nos. of nozeles fitted in pipe line inside the water Pond, Called mist cooling system.

6.2.10 WATER HYDRANT POINT AND FIRE EXTINGUISHER

To meet the Fire Hazards if occur, to sprinkle the water at every section of Factory, Water Hydrant Point with single headed and double headed nozzle and Fire Extinguishers are provided in sufficient nos. all round inside and outside the factory structures.

6.2.11 EOT CRANE

There is 1 No of EOT Cranes mounted on Turbine Shed used for lifting and loading of capacity 15/5 MT.

6.2.12 LABORATORY EQUIPMENTS

There is one Laboratory well equipped for analysing the Raw water .Chemical composition of Fuel and Testing the Properties of steam etc. along with the quality of Ferro Alloys

6.3 SOLAR POWER UNIT DIVISION

6.3.1 CONCENTRATE PHOTO VOLAINIC PANELS (CPV)

There are Nos. of (CPV) Concentrate Photo Volainic Panels/Solar panels, mounted on platform to receive Sun's radiation/sun light and to convert in Electricity.

6.3.2 CONTROL PANEL/ INVERTORS

Control panel/invertors placed in panel /Battery Room for converting Direct current (DC) in Alternate current (AC) supplied by CPV and then stepup & supply to different section of plant through switch yard/ sub station.

6.3.3 RECHARGABLE BATTERIES

Excess Generation of Electricity is stored in No. of Rechargable batteries placed in Control Room to ensure the Power in absent of Sunlight.

6.4 GENERAL SECTION/DIVISION

6.4.1 L.P.G. CYLINDERS

L.P.G. is used as a fuel for Cutting/Welding for this LPG Commercial Cylinders are imported about 15-20 Nos. and placed on properly marked Platform. These cylinders are conveyed/carried as per demand/use to the working place/workshop.

6.4.2 OXYGEN GAS CYLINDERS

Oxygen Gas is used as a fuel for Cutting/Welding for this Oxygen Commercial Cylinders are imported about 15-20 Nos. and placed on properly marked Platform. These cylinders are conveyed/carried as per demand/use to the working place/workshop.

6.4.2 RAW MATERIALS & THEIR QUANTITY

To meet the normal production Main Raw materials and their Quantity stored in Factory are as follows:-

S.NO.	RAW MATERIAL	QUANTITY	MEANS OF STORAGE
	FERRO ALLOYS & POWER PLANT DIVISION		
1.	Mn ORE	1000 MT	IN OPEN YARD
2.	DOLOMITE	100 MT	IN OPEN YARD
3.	PET COKE/COAL	1000 MT	IN COVERED SHED/YARD
4.	ALLOYS OF MAGNESE, SILICA	36 MT	IN COVERED SHED
5.	M.S. SCRAP	20 MT	IN OPEN YARD
6.	SULPHURIC ACID	300-400 LTS.	40 LTS JERICANE IN STORE
7.	HYDRAZINE HYDRATE	200-250 LTS.	40 LTS JERICANE IN STORE
8.	DIESEL	200-400 LTS.	IN MS DRUM IN STORE
9.	T.G/TRANSFORMER OIL	200-400 LTS	IN MS DRUM IN STORE
10	LPG CYLINDERS (For Cutting/Welding Purpose)	10-20 NOS	IN 19 KG CYLINDER (COMMERCIAL CYLINDER)
11	O_2 CYLINDERS (For Cutting/Welding Purpose)	10-20 NOS	IN 50 KG CYLINDER (COMMERCIAL CYLINDER)
12	LABORATORY CHEMICALS	1OR 2 KG	IN BOTTLES & BOXES IN LAB

S. NO.	FINISHED PRODUCT	QUANTITY	STORAGE PLACE & MEANS
01	FERROALLOYS	100 MT	IN COVERED SHED
02	GENERATION OF POWER (ELECTRICITY IN TPP)	8 MW	SWITCH FOR CAPTIVE USE
03	GENERATION OF POWER (SOLAR POWER UNIT)	0.1 MW	SWITCH FOR CAPTIVE USE

NOTE :- Storage Area of material where there is possibility of spillage/leakage, are provided with dyke wall. So that leaked material will not mix up/spill over a large area and can be reused/ disposed off easily. Material like Diesel Oil/ ACID are stored in Tank provided with dyke wall.

CHAPTER- 7

HAZARDS CONSIDERATION IN OPERATION/PROCESS/STORAGE, MSDS & RISK ANALYSIS IN M/S ALOK FERRO ALLOYS LTD.

7.1 HAZARDS CONSIDERATION

7.1.1 MAJOR HAZARD POTENTIAL ASSESSMENT

The major disasters or emergencies usually take birth from one or any combination of the following :-

(a) Slow isolated fires
(b) Fast spreading fires
(c) Explosions
(d) Bursting of pipe lines/vessels
(e) Uncontrolled release of toxic/corrosive/flammable liquids.
(f) Uncontrolled release toxic/flammable gases/dust

Depending upon the nature, scale, speed and impact on environment each of these may constitute an emergency. The hazard potential of various plant sections is identified and tabulated.

7.1.2 POSSIBILITY OF FIRE HAZARD

(a). In Coal/Oil Storage section
(b) Cables on galleries and on trays in all plant sections
(c) From oil handling

7.1.3. POSSIBILITY OF EXPLOSION HAZARD

(a) In the Arc Furnace (Charging of scrap & alloy)
(b) Transformers (oil cooled), Turbo Generator
(c) Tapping of Melt in the Ladle & Mould
(d) Compressor and Air Tank

7.1.4 POSSIBILITY OF BURSTING OF PIPE LINES

(a) Compressed Air Pipes due to high pressure.
(b) Water pipes due to high pressure.
(c) Diesel carrying pipe due to high pressure.
(d) Steam Pipes due to high pressure.

7.1.5 POSSIBILITY OF RELEASE OF GASES / DUSTS

(a) Gases from Boiler during combustion.
(b) Fumes & CO from the furnace at the time of melting.
(c) CO from the Turbo Generator due to Excessive heat.

7.1.6 POSSIBILITY OF SILICOSIS & OTHER DISEASE DUE TO MN DUST.

a) Breathing crystalline silica/coal causes silicosis and the main risk factor is exposure to silica dust.
b) Exposure in Manganese Dust (excessive) may Cause diseases of brain in its dump area.

7.2 HAZARDOUS MATERIALS STORED IN FACTORY

S. NO.	NAME OF THE HAZARD-OUS CHEMIC-AL	IS M.S.D.S ENCLOSED	MAXIMUM QUANTITY OF STORAGE IN TON/KL	PLACE OF STORAGE	MODE OF STORAGE VIZ IN BAGS, IN UNDER GROUND STORAGE OR ABOVE GROUND STORAGE. CAPACITY OF STORAGE	ARRANGEMENT MADE TO CONTROL DE-CONTAIN-MENT LIKE DYKE ETC	(1) OTHER SAFETY ARRANGE--MENT. (2)AREA LIKELY TO BE AFFECTED	LIST OF PPES BE USED DURING HANDLING OF THESE CHEMICALS	CONT-ROL MEASAURES REQUIRED/ PROVIDED
01	DIESEL OIL	YES ON PAGE NO.-77	400 LTS.	UNDER COVERED SHED/ YARD	IN MS /FRP DRUMS OF 200 LTS. IN COVERED SHED/YARD	YES DYKE WALL PROVIDED AND PROPER HOUSE KEEPING TO CONTRL SPILLAGE /LEAKAGE	1A) FIRE EXTINGUISHER AND HYDRANT LINE 1B) FIRE EXITS AND ESCAPE ROUTES KEEP CLEAR AND MARKED 2) UPTO 200 M	FIRE PROOF APRON AND SUITS, SAFETY SHOES. NOSE MASK, HAND GLOBES, ETC.	1) FIRE EXTINGU-ISHERS IN SUFFICIENT NOS. 2) HYDRANT LINE ALL AROUND THE PLANT 3)CHEMICALS ARE STORED IN MARKED AREA PROVI-DED WITH DYKE WALL 4) DUST OF ALL MATERIAL SUPPRESED BY SPRINK-LING & ARREST BY BAG FILTERS (PCE WITH CHIMNEY) ARE PROVIDED. 5) LIGHTENING ARRESTER PROVIDED
02	SULPHURIC ACID	YES ON PAGE NO.-78	400 LTS	UNDER COVERED SHED	IN 25/40 LTS PVC/FRP JERICAN STORED ON PLATFORM AT GROUND UNDER SHED	YES DYKE WALL PROVIDED AND PROPER HOUSE KEEPING TO CONTRL SPILLAGE /LEAKAGE	1A) FIRE EXTINGUISHER AND HYDRANT LINE 1B) FIRE EXITS AND ESCAPE ROUTES KEEP CLEAR AND MARKED 2) UPTO 200 M	FIRE PROOF APRON AND SUITS, SAFETY SHOES. NOSE MASK, HAND GLOBES, ETC.	
03	HYDRAZINE HYDRATE	YES ON PAGE NO.-79	250 LTS	UNDER COVERED SHED.	IN 25/40 LTS PVC/FRP JERICAN STORED ON PLATFORM AT GROUND UNDER SHED	YES DYKE WALL PROVIDED AND PROPER HOUSE KEEPING TO CONTRL SPILLAGE /LEAKAGE	1A) FIRE EXTINGUISHER AND HYDRANT LINE 1B) FIRE EXITS AND ESCAPE ROUTES KEEP CLEAR AND MARKED 2) UPTO 200 M	FIRE PROOF APRON AND SUITS, SAFETY SHOES. NOSE MASK, HAND GLOBES, ETC.	
04	T.G. OIL/ TRANSFORMER OIL	YES ON PAGE NO.-81	400 LTS.	UNDER COVERED SHED/ YARD	IN MS /FRP DRUMS OF 200 LTS. IN COVERED SHED/YARD	YES DYKE WALL PROVIDED AND PROPER HOUSE KEEPING TO CONTRL SPILLAGE /LEAKAGE	1A) FIRE EXTINGUISHER AND HYDRANT LINE 1B) FIRE EXITS AND ESCAPE ROUTES KEEP CLEAR AND MARKED 2) UPTO 200 M	FIRE PROOF APRON AND SUITS, SAFETY SHOES. NOSE MASK, HAND GLOBES, ETC.	

S. NO.	NAME OF THE HAZARD-OUS CHEMIC-AL	IS M.S.D.S ENCL-OS ED	MAXIM UM QUANTI TY OF STORAG E IN TON/KL	PLACE OF STORA GE	MODE OF STORAGE VIZ IN BAGS, IN UNDER GROUND STORAGE OR ABOVE GROUND STORAGE. CAPACITY OF STORAGE	ARRANGE MENT MADE TO CONTROL DE-CONTAIN-MENT LIKE DYKE ETC	(1) OTHER SAFETY ARRANGE--MENT. (2)AREA LIKELY TO BE AFFECTED	LIST OF PPES BE USED DURING HANDLING OF THESE CHEMICALS	CONT-ROL MEASAURES REQUIRED/ PROVIDED
05	LPG (LIQUIFY PETROLE UM GAS	YES ON PAGE NO.-82	20 CYLIND ERS	UNDER COVERE D SHED	IN COMM--ERCIAL CYLIND--ERS-19 KG STORED ON PLATFORM AT GROUND UNDER SHED	YES DYKE WALL PROVIDED AND PROPER HOUSE KEEPING TO CONTRL SPILLAGE /LEAKAGE	1A) FIRE EXTINGUISHER AND HYDRANT LINE 1B) FIRE EXITS AND ESCAPE ROUTES KEEP CLEAR AND MARKED 2) UPTO 200 M	FIRE PROOF APRON AND SUITS, SAFETY SHOES. NOSE MASK, HAND GLOBES, ETC.	1) FIRE EXTINGU--ISHERS IN SUFFICIENT NOS. 2) HYDRANT LINE ALL AROUND THE PLANT 3)CHEMICALS ARE STORED IN MARKED AREA PROVI-DED WITH DYKE WALL 4) DUST OF ALL MATERIAL SUPPRESED BY SPRINK-LING & ARREST BY BAG FILTERS (PCE WITH CHIMNEY) ARE PROVIDED. 5) LIGHTENING ARRESTER PROVIDED
06	OXYGEN GAS	YES ON PAGE NO.-84	20 CYLINDE RS	UNDER COVERE D SHED.	IN COMM--ERCIAL CYLIND--ERS-50 KG STORED ON PLATFORM AT GROUND UNDER SHED	YES DYKE WALL PROVIDED AND PROPER HOUSE KEEPING TO CONTRL SPILLAGE /LEAKAGE	1A) FIRE EXTINGUISHER AND HYDRANT LINE 1B) FIRE EXITS AND ESCAPE ROUTES KEEP CLEAR AND MARKED 2) UPTO 200 M	FIRE PROOF APRON AND SUITS, SAFETY SHOES. NOSE MASK, HAND GLOBES, ETC.	
07	COAL/ PET COKE	YES ON PAGE NO.-86	1000 MT	IN COVER-ED SHED /YARD	STORED / DUMPED AS STACK STORED ON PLATFORM AT GROUND UNDER SHED	YES DYKE WALL PROVIDED AND PROPER HOUSE KEEPING TO CONTRL SPILLAGE	1A) FIRE EXTINGUISHER AND HYDRANT LINE 1B) FIRE EXITS AND ESCAPE ROUTES KEEP CLEAR AND MARKED 2) UPTO 200 M	FIRE PROOF APRON AND SUITS, SAFETY SHOES. NOSE MASK, HAND GLOBES, ETC.	
08	MANGAN ES ORE	YES ON PAGE NO.-88	1000 MT	IN COVER-ED SHED /YARD	STORED / DUMPED AS STACK STORED ON PLATFORM AT GROUND UNDER SHED	YES DYKE WALL PROVIDED AND PROPER HOUSE KEEPING TO CONTRL SPILLAGE	1A) FIRE EXTINGUISHER AND HYDRANT LINE 1B) FIRE EXITS AND ESCAPE ROUTES KEEP CLEAR AND MARKED 2) UPTO 200 M	FIRE PROOF APRON AND SUITS, SAFETY SHOES. NOSE MASK, HAND GLOBES, ETC.	

7.3 Consequence of Major Hazardous from Storage:

I. Coal & pet Coke

1) Fire may possible if directly come in contact.

II. Diesel Oil

1) Fire may possible if directly come in contact.
2) Due to Fire, explosion of LDO storage drum can occur.

III Sulphuric Acid, Hydrazine Hydrate, Gas Cylinder

1. These chemicals if heated to decompose give out highly toxic fumes. Which can spread in the surroundings causing toxic effects.
2. Spillage of these materials due to leakage or collapse of storage vessels can give out toxic fumes and gases affecting workers.
3. These material can cause bursting of storage vessels as they react with oxidizing material and with other impurities like acids, amiens, moisture, thus emiting out toxic gases and fumes which can spread in work area.
4. Leakage from Gas cylinder cause spreading of toxic gases & Fire in the factory and in Adjoining areas out side factory.
5. In the event of the collapse or leakage of the storage tanks these chemicals can emit highly toxic fumes in contact with moisture or water, affecting workers and people in surroundings areas.

7.4 Consequence of Major Hazardous from Processing:

I) In the Casting division mainly Hurt/Burn may possible to the workers from moving parts of m/cs and due to handling of hot materials. Boiling & Splashing mainly occur due to impurities of silica in RM . It has found that higher % of Silica, form/cause a hard cover over molten mass in furnace and during removing/breaking this cover/ slag may cause excess boiling and splashing of molten metal , due to it hazard may arise in near by area and in turn may convert in accident.

II). In Casting Division some times explosion may possible in Tapping Chute and in Sand Mould at the time of tapping of hot metal due to difference in temp.

III) Local Hazard at the place due to spillage, spread to near by area and fumes of LPG/Oil/Gas spread and densely contaimed in working area.

IV) In Coal Fired Boiler CO gas is produce which may be harmful if inhaled by workers in excess(such situation aries only if combustion of coal is in presence of less Oxygen and if it will not exhaust immediately in to the atmosphere.)

7.5 Physical Range of Consequences (Propagation) :

Storage (hazardous as per 7.3.)	Processing/ (Hazardous as per 7.4)
I. Limited to Factory premises	I. Limited to Factory premises
II. Can spread up to 200 mts or out side the factory premises	II. Can spread in the processing section/shed up to 200 mts up to the factory premises.
III. Can spread up to 200 mts or out side the premises.	III. Can spread up to 200 mts or out side the premises.

7.6 MATERIAL SAFETY DATA SHEET OF HAZARDOUS MATERIAL

Material Safety Data Sheet of Hazardous Material used/stored in factory are enclosed as Annexure-4 (Page No.- 77 to 91)

7.7 DESCRIPTION OF HAZARDOUS OPERATION/PROCESS/AREA/MATERIALS AND RISK ANALYSIS IN M/S ALOK FERRO ALLOYS LTD.

Here we again describe the possible hazardous not only due to chemicals but also due to the other plant and machineries and means to overcome them, in tabulated form here as under:-

01. FERRO ALLOY DIVISION (SAF PLANT)

S. No. (01)	OPERATION /PROCESS /EQUIPMENT/AREAS (02)	HAZARDS IDENTIFIC--ATION (03)	CONTROL MEASURES (IMPLEMENTED/EXISTING) (04)	MEASURES TO BE TAKEN IF MISHAP/HAZARDS OCCURS. (05)
01	Submerged Arc Furnace Moulding Pot /LRF	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 malfunct-ion Furnace get switched off automatically and can be restarted only after removing the faults.
02	Charging of RM, Manganese, scrap and other material in SA Furnace And Moving Parts of other M/Cs	Cut/Burnt & Dust hazards may possible (Mn, Coal, Sand & other Material dust) (Medical Problem due To Manganese Dust as given in MSDS)	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 Managemer 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 Laddle/molds Process of casting	Burn due to Hot metal 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. (01)	OPERATION /PROCESS /EQUIPME-NT/AREAS (02)	HAZARDS IDENTIFIC-ATION (03)	CONTROL MEASURES (IMPLEMENTED/EXISTING) (04)	MEASURES TO BE TAKEN IF MISHAP/HAZARDS OCCURS. (05)
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 & loosing 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 done only after obtaining the line clearance b) If any injury may cause then after giving first aid to person /worker refer for further treatment 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, Acetelene, LPG etc.	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/Rubber 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_2) 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. (01)	OPERATION /PROCESS /EQUIPME-NT/AREAS (02)	HAZARDS IDENTIFIC--ATION (03)	CONTROL MEASURES (IMPLEMENTED/EXISTING) (04)	MEASURES TO BE TAKEN IF MISHAP/HAZARDS OCCURS. (05)
07.	Water Cooling Pond/cooling Tower	Drowning of a man possible. Burnt due to return-ing 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 then after giving first aid to person/worker refer for furthe treatmentto Doctor/ Hospital
08.	Lab chemical like ammonia Sulpheric 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 dis-played for the knowledge other man to take care of the situation in the event of occurance. (See Annexure `1')
09.	Control Rooms	Electrical shock Possible due to leakage.	A.Earth leakage Circuit breaker is installed. B. Shock precaution & treat ment chart are displayed. C. Operater should Be pro-vided 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. Lightening Arrester 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 (TPP) & SOLAR POWER DIVISION

S. No. (01)	OPERATION/ PROCESS EQUIPME-NT/AREAS (02)	HAZARDS IDENTIFICATION (03)	CONTROL MEASURES (IMPLEMENTED/EXISTING) (04)	MEASURES TO BE TAKEN IF MISHAP/HAZARDS OCCURS. (05)
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 from Pipe Line/ Boiler	Leakage of steam 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 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 tourch is used to find out the leakage. c) In the event of major leakage the production of steam will stopped and maintenance of leakage point may carry quickly.
4.	Control Rooms/ Switch yard and Power panels Of Solar Power	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.

S. No. (01)	OPERATION/ PROCESS EQUIPME-NT/AREAS (02)	HAZARDS IDENTIFICATION (03)	CONTROL MEASURES (IMPLEMENTED/EXISTING) (04)	MEASURES TO BE TAKEN IF MISHAP/HAZARDS OCCURS. (05)
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. c) 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 Solar Panel Structures, assembling maintainance and 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 Incharge. c) Entry of other person is prohibited and proper watch is kept by Officer Incharge.	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)

S. No. (01)	OPERATION /PROCESS /EQUIPME-NT/AREAS (02)	HAZARDS IDENTIFIC--ATION (03)	CONTROL MEASURES (IMPLEMENTED/EXISTING) (04)	MEASURES TO BE TAKEN IF MISHAP/HAZARDS OCCURS. (05)
	GENERAL : HANDLING & TRANSPORTATION OF RAW & FINISHED MATERIAL			
1.	Handling/ Storage/ Transportation (import/export) of Raw Material and Finished Products by Road in/out side the Factory	Any Worker/person may knock-out, trail/dash/trample/toe by running vehicle or during Loading/Unloading and Handling/ storage of Raw/Finished Material, ultimately get convert in serious accident	1. Speed Limit of Vehicle is displayed every where in the plant. Driver of vehicle are instructed time to time. 2. No movement of Strange people on road/Loading/Unloading & Storage Points will be allowed. 3. Frequent check for Speed of vehicle made and loading/ unloading of material carried in/under supervision of trained Supervisors. 4. Light indication for Movement of Transport Vehicle is proposed. 5. Overloading & overtaking is strictly prohibited, 6. Handling & Storage of Material Will be carried very care fully and at proper marked place/Area.	1) Even after adopting all safety measures for Road Transportion , if any person/worker may get accidences then immediate action taken by Supervisors/ rescue team. 2) If any injury may cause then after giving first aid at site/OHC to person/worker, refer for further treatment to Doctor/Hospital.

S. No. (01)	Hazzard due to boiling /splashing of Molten metal (02)	Provisions are made in our plant/measures to be taken if mishap/hazards occurs. (03)
(a)	Risk Analysis of various plants in terms of molten metal boiling, splashing due to various reasons are possible in our Unit too.	Now it addressed adequately as much as possible and we take care/adopted in our plant, to avoid any possibilities of accident. In SAF Plant different Raw Materials (mainly- Ferro?Manganese/Silica Ore , Scrap ,Coal/Coke and other Alloys are feed in furnace for melting, in SAF Furnace . Boiling & Splashing mainly occur due to impurities of silica in RM . It has found that higer % of Silica form/cause a hard cover over molten mass in furnace and during removing/breaking this cover/ slag may cause excess boiling and splashing of molten metal , due to it hazard may arise in near by area and in turn may convert in accident. In our Unit proper care taken/ adopted to avoid any such condition. 1) proper analysis is done in lab of all raw material batch wise and only then feed in furnace. 2) whole process/operation are carried in presence of trained/well qualified person and step by step under their Guidance, to avoid any such possibilities of accident/hazards. 3) All Raw Material must de-moisturised before feeding the furnace. As RM get melt and if it required to add some alloy/RM part, then it must de-moisturised before adding in melt. So that temperature difference of both material not much more, otherwise there may be chance of explosion. 4) the ladle must be heated by LRF before tapping the melt in it. If the temperatue of ladle & melt is differ much more then there will be the chance of explosion. Due to such adopted care in operation/production, no any such accidents of Boiling/splashing are notice in our plant.

CHAPTER - 8

FACILITIES AVAILABLE TO FIGHT HAZARDS IN M/S ALOK FERRO ALLOYS LTD.

8.1. ALARMING SYSTEM

An electric ALARM facility is available at M/S ALOK FERRO ALLOYS LTD. having a range of 0.50 KM. Its switch is kept in ECC and at Time Office Presently the alarm is maintained in general for Plant worker as well as for general Public too, as under:

Presently the alarm is maintained in general as under:

1. At 6.00 AM - For end of C shift and begining of A Shift.
2. At 8.00 AM - For beginning of General Shift.
3. At 10.00 AM - For lunch break of A Shift
4 At 11.00 AM - For end of lunch break of A Shift
5. At 1.00 PM - For lunch break
6. At 2.00 PM - For end of lunch break & end of A shift and beginning of B shift.
7. At 5.00 PM - For end of General Shift
8. At 6.00 PM - For lunch/Rest break of B Shift
9 At 7.00PM - For end of lunch break of B Shift
10. At 10.00 PM - For end of B shift and begining of C Shift.
11. At 2.00 AM - For lunch/Rest break of C Shift
12. At 3.00 AM - For end of lunch break of C Shift

The siren is blown continuously for 15 seconds once only in above cases.

8.1.1 EMERGENCY ALARM SYSTEM

In case emergency arises in the plant the way of blowing the siren shall be as under and blown by either CIC or by Time Office in-charge/Security Officer only after getting permission from CIC/WIC

S.NO.	NATURE OF EMERGENCY	TYPE OF ALARM
01.	NORMAL FACTORY SIREN	CONTINUOUS BLOW FOR 15 SECONDS (ONCE ONLY)
02.	FIRE EMERGENCY, EXPLOSION AND IN CASE OF LEAKAGE OF OIL/ CHEMICALS	BLOW FOR 10(TEN) SECONDS AND OF FOR 05 (FIVE) SECONDS TO BE REPEATED 03 (THREE)TIMES
03.	EMERGENCY CLEAR SIERN	CONTINUOUS BLOW FOR 30 (THIRTY) SECONDS ONCE ONLLY

8.2 EMERGENCY CONTROL CENTER (E.C.C)

For the efficient implementation of Emergency Action Plan, The Emergency Control Center (E.C.C) has established in our Unit, near the chamber of Director, situated in Office Building located near the entrance of Plant.

The E.C.C will be managed by the Chief Incident Controller in association with WIC, Security Officer, the Key Personnel and Sr. Officers of outside agencies called in for assistance. No other personnel shall be allowed to access the E.C.C.

The Emergency Control Center will be equipped with the following data/information:

1. Safety data pertaining to the hazardous materials likely to cause emergency.

2. Procedure of major and special fire fighting, rescue operations, first-aid, artificial respiration system, etc.

3. Emergency call out list of persons drafted for emergency control i.e. key personnel and notified team members, Security, Police and State authorities.

8.2.1 FACILITIES AVAILABLE AT E.C.C

The Emergency control Center (ECC) shall be equipped with following facilities all the time:

1. Intercoms/PAS system.
2. P & T Phones & Mobiles.
3. Internet & Fax facilities.
4. Layout Plan and Key Plan map.
5. District telephone directory.
6. Emergency lights.
7. Wind direction and speed indicator.
8. On-Site Emergency Plan manuals.
9. First Aid Box and its position in different section.
10. List of Personal Protective Equipment. (PPE)
11. Position of Fire Fighting Equipments. (on Layout plan)

8.2.2 AMBIENT WIND DIRECTION

The direction of wind of this area is generally from South West North East. As there is no sea Surrounded to this place the ambient wind is calm and stern. A wind bag is fixed on the top floor of the unit to see the wind flow and direction. During extreme summer due to atmospheric pressure wind velocity is observed as high.

A Chart is affixed in ECC, main gate and prominent points giving details about air direction and its probable speed, Gas detector is provided near Manufacturing Plant.

8.2.3 EMERGENCY LIGHTING FACILITY

For lighting the critical zones/Area of Plant at the time of Emergency and during the power cut off, We have D.G. Set through which power will be supplied for lighting all sections of Plant and also to run all the emergency equipments such as hydrant pump, extinguishing system, Condensers etc.

8.2.4 FACILITY OF ROLL CALLS/ATTENDENCE

At the time of Entry of workers for the Working shift the Roll Calls for attendance are made by Computerised punching System and by Time keeper/Supervisor too, for checking the system time to time. A proper records are kept as per rule.

8.2.5 FACILITY, TO INFORM RELATIVES OF VICTIM

The relatives of affected person due to emergency will informed trough Mobile of their close relatives as given by the workers in their bio data and by sending the office Staff to his residence (Address and Mobile/Telephone Nos of Close Relatives of all workers are noted & kept in record)).

8.2.6 FUNCTION OF EMERGENCY CONTROL CENTER (E.C.C)

In an emergency it is almost certain to evacuate affected person from inside the factory to a safer place. It is also essential to evacuate non-essential workers to streamline emergency Action Plan activities and ensuring safety of those people. The evacuation will be affected after getting infor -mation from the Works Incident Controller soon after emergency arises. On evacuation, all works staff and employees other than Notified Team Member, shall be assembled at the assembly point for receiving and to work accord further information, etc.

8.3 ASSEMBLY POINT

The Plant Gate has been marked as Assembly Point for the purpose defined above. As soon as the non-essential staff and employees came to knew about emergency, they shall reach to the assembly point without delaying and further, to ensure their safety and security.

8.3.1 ALTERNATE ASSEMBLY POINT

In the event of any problem, if arises so, to establish Assembly Point at Plant Gate 2 the Alternate Assembly Point has been marked near the Office.

All employees and work staff assembled at the Assembly Point shall abide to the information and actions plan made know to them either by C.I.C or W.I.C or their representatives. The non-essential work staff and employees shall not leave the assembly point unless and until asked for by the competent authority.

8.4 RESPONSIBILITY/DUTIES OF MEMBERS OF OUR ORGANISATION

The Responsibility and duty of personnel's of M/S ALOK FERRO ALLOYS LTD. at the time of Emergency, are classified as under:

1. CHIEF INCIDENT CONTROLLER
2. WORKS INCIDENT CONTROLLER
3. KEY PERSONNEL
4. ESSENTIAL STAFF/CREW MEMBER AND NON-KEY PERSONNEL during the emergency.

8.4.1 RESPONSIBILITY OF CHIEF INCIDENT CONTROLLER

The overall in charge i.e. Director Shri Ajay Dubey shall be the Chief Incident Controller. Shri Firoz Khan General Manager (Asst. WIC) will take over the charge of Chief Incident Controller in case of absent of Director.

The Chief Incident Controller (CIC) shall assume overall responsibility for the factory/storage site and its personnel.

The C.I.C. shall be responsible:

a. To assess the magnitude of the situation and to decide if the affected staff needs evacuation from the assembly points to an identify safer place.
b. To exercise direct operational control over the areas other than those affected.
c. To undertake a continuous review of possible developments and assess in consultation with the WIC/Key personnel as to whether shut-down the plant or any section thereof, and the need of evacuation of personnel.
d. To liaise with Sr. Officials of Police, Fire Brigade, Medical authorities Industries in Mutual Aid and Factory Inspector etc. in consultation with Communication Officer on phones and in writing too, and provide advise on possible effects on areas outside the factory premises as well as on adjacent village/residential area, through head of P&A. about the emergency.
e. To look after rehabitation of affected personnel on discontinuation of Emergency.
f. To issue authorized statements to news media and, ensure that evidence is preserve for enquiries to be conducted by departmental as well as statutory authorities.

In addition to above, the following simultaneous actions will also be taken during the emergency period by CIC.

(A) DECLARATION OF EMERGENCY

After consulting the WORKS INCIDENT CONTROLLER, to declare EMERGENCY in the plant.

(B) GIVING ALL CLEAR SIGNAL

After overcoming the emergency in Plant, after consulting with WIC, he has to give ALL CLEAR SIGNAL.

(C) INFORMATION TO GOVT. DEPARTMENT

CIC/WIC will inform to all Govt. department as well as to Factory Inspector about the committed Emergency, and try to implement the suggestion from them

8.4.2 RESPONSIBILITY OF WORKS INCIDENT CONTROLLER

Shri Ajay Dubey Director self act as Factory Manager shall be the Works Incident Controller (WIC). (In absent of Shri Dubey Shri Khan/ Shri Pramod Chandrakar act as a Asst. WIC)

The W.I.C. shall immediately rushed to the incident site as soon as he comes to know about the emergency and, shall take overall charge. He shall subsequently informed about the emergency to the Chief Incident Controller. He will assess the extent of the emergency and decide if major emergency exist and inform the communication Officer accordingly. Further the Officer in consultation with CIC inform to all out side agencies.

He shall be responsible:

(a) To direct all operations to stop within the affected area taking into consideration priorities for safety of personnel, minimum damage to the plant, property and environment and, minimum loss to materials.

(b) To provide advise and information to the Fire & Security Officer and the local fire service.

(c) To ensure that all non essential workers/staff of the affected areas are evacuated to assembly points and that the affected areas are searched for casualties.

(d) To set-up communication points and establish contact with Emergency Control Center the event of area of electric supply causing disruption in Public Address System (PAS) and internal telephones.

(e) To report on all significant and developments to the Communication Officer, and

(f) To have regard to the need to preserve the evidence so as to facilitate any enquiry in the cause and circumstances which caused or escalated the emergency.

(g) It will be the responsibility of (WIC) Works Incident Controller to identify the essential staff from Work Task Force and ask them to report at the define Control Center so as to ensure their availability.

8.4.3 RESPONSIBILITY OF KEY PERSONNEL

Apart from the Chief Incident Controller and Works Incident Controller,there shall be other key personnel who will be responsible to assist the C.I.C. and the W.I.C. as well as to carry out the job assign to them in connection with combating the emergency.

The Key Personnel/Officer In-charge list is already given. A list of the key personnel along with their telephone numbers and their residential address shall be made available to all concerned suitably. Wherever and whenever required, the key personnel in addition to their job assigned, shall assist the Chief Incident Controller and Works Incident Controller.

8.4.4 RESPONSIBILITY OF ESSENTIAL STAFF/CREW MEMBER

To streamline the activities in connection with combating the Emergency, personnel selected shall be known as Essential Staff. This may include Steno/ Typist, Attendants, messengers, Drivers, Supervisors etc. depending upon the services required by either C.I.C. or W.I.C. or the Key personnel.

8.4.5 RESPONSIBILITY OF NON KEY PERSONAL

At the time of entry of Non-Key Personnel i.e. person from out side, instruct them to Know about the rule & regulation of Plant. Also be provide them a literature/ Pomplet that what TO DO and what NOT TO DO, also about their duty if emergency arises and to work as per the instruction of organisation member.

8.5 FIRE FIGHTING FACILITY AVAILABLE IN FACTORY TO FIGHT FIRE

In our Unit we going to provided all fire fighting facility as per Rule 37, are described here as under:-

Fire extinguisher & its capacity	**Fire tender Tanker/ Trailer pump its capacity**	**Max. quantity of foam & foaming agents**	**Water jet producer**	**Water storage tank & its capacity**	**Nos. of hydrant points & their location**	**Nos. of hosereel & total length**
CO2 5 x 2 KG	A fire tender Tanker/ Trailer pump of capacity 6 KL with a pump of cap. 20 H.P.	295KG.	One fire Pump of 50HP produced water jet at 7KG/CM 2 .	2 Nos. O/H tank capacity of 80 KL and 3No. GWT of cap.600KL	10 points (07Nos. Single headed & 3 Nos. double headed	10 Nos. 15mts. Long total 150mts. Long.
CO2 9 x 4.5 KG						
CO2 3 x 9 KG						
CO2 2x10 KG						
ABC 12 x 10 KG						
ABC 4 x 9 KG						
ABC 12 x 6 KG						
ABC 4 x 5 KG						
ABC 4 x 2 KG						
DCP 1 x 6 KG						
DCP 2 x 10 KG						
M. FOAM (S.P.) 3 x 9 LTR						
M/F (S.P.) 3 x 9 LTR						
W/T (S.P.) 5 x 9 LTR						
M/F. (C.T.) 3 x 9 LTR						

8.5.1 FACILITY OF FIRE BRIGADE AVAILABLE IN RAIPUR AND NEAR BY AREA :

Following are the Fire Brigade Services available on call **:--**

1) Fire Brigade Services of Raipur Municipal Corporation **:** Ph.2774101 to 2774104
2) Fire Brigade Services of Railway Raipur **:** Ph.2526312, 2523312
3) Fire Brigade Services of Raipur Aerodrum **:** Ph.2423109
4) Fire Brigade Services of Bhilai Steel Plant, Bhilai **:** Ph.2286151, 2286161

8.5.2 INFORMATION REGARDING THE FIRE BRIGADE SERVICE OF RAIPUR MUNICIPAL CORPORATION

(a) Fire Brigade Supdt. : Shri S.P. Govardhan Singh Dhruv.

(b) Sub Officer : Ms. Hanima.

Shri S.K. Khajuria.

(c) Head Leading Fire Man : 3 Nos.
(d) Staff Driver : 20 Nos.
(e) Fire Man (8 Hrs. Shift) : 37 Nos.

The Fire Brigade Service of Raipur Municipal Corp. is equipped with all & Every type of Fire Fighting Equipment to overcome any type of Emergency whether it may be of Fire or due to leakage/spillage of chemicals/Acid etc. On call after knowing about the type of emergency, they readily rush to the incident point and take charge to overcome the emergency.

8.6 EMERGENCY MEDICAL FACILITY AVAILABLE IN FACTORY.

8.6.1 OCCUPATIONAL HEALTH CENTER

Employed/enrolled Worker in our Plant are 153 Nos and the upper Limit of Licence is 250 Nos. even though we have established a OHC (Occupational Health Center) within the premises of Factory and near to Office having 2- Rooms and attached Toilet. OHC is equipped with following:-

(i) A part-time Factory Medical Officer named Dr.Sanjay Shukla deputed by Management is over all in-charge of the Centre and visit the factory at least twice in a week and his services readily available during any medical emergencies.

(ii) One qualified and trained dresser-cum-compounder on duty throughout the working period named Shri Motilal Sahu

(iii) A fully equipped first aid box in all the department/Sections of Factory are there and First Aid Trained person available during working hours to give First Aid to victim. First Aiders Name are : Shri Motilal Sahu Shri P. K.Verma and Shri Sunny Josheph

8.6.2 Equipment Available in Occupational Health Centre

- Full flash Toilet with WB , Commode, Shower, Tap, Buckets etc.
- 2 Nos Bed, Rolling & Handling Stretcher, Tables & Chairs
- All Medical equipments for minor surgery and as required by medical Officer.
- All most all Medicines as prescribed by medical Officer for normal treatment.
- Oxygen cylinder with necessary attachments
- In addition with this Ambulance van (Omni) Regd. No.- CG04-NE-1903 Provided by Management and kept in Factory

Company has provided FIRST AID Boxes at every section of Factory premises and at OHC (Occupational Health Center)/ and in security office with following medicines- 4 Nos.

01. SUFRAMYCIN	02. BETNOVATE - N	03. LOCULA - 10%	04. BURNOL
05. DETOL	06. MECROERON	07. NIMSULF	08. IODINE
09. BETADINE (Iodine Ointment)		10. RELAXYGEL	11. BANDAGE
12. COTTON		13. SCISSORS	

8.6.3 HOSPITALISATION FACILITY

If any person/worker who gets affected during Emergency incidence in factory will immediately attended by Supervisor & First Aider on duty and carry him to Occupational Health Center where he will be treated as per the instruction of Doctor or shall be shifted for better treatment to nearer medical center/Hospital. Company has kept a vehicle/Ambulance -1 No.(Ambulance van (Omni) Regd. No.- CG04-NE-1903 Provided by management and kept in Factory to meet any emergency if arise.

Detail of Medical Centers available in Near by Area of Factory are as under

8.6.4 FACILITY OF MEDICAL SERVICE AVAILABLE IN RAIPUR AND NEAR BY AREA:

(a) 700 bedded Medical College Hospital Mecahara is about 08 Kms. from the factory.
C.M.O. RAIPUR MECAHARA HOSPITAL Phone No.- (0771) 2511201 (O) 2528481 (R)

(b) ESI Hospital situated in Urla Industrial Area Phone No. - (0771)- 2323472

(c) Pandey Nurshing Home of Dr. Smt. Pandey in Samta Colony, Raipur is about09 KM from Factory, Nurshing home is equipped with following: Phone. No.- 0771)- 2255430, 2255454
Doctors-4 Nos. (One of them is always for emergency service), Compounder - 4 No.
Nurses -10 Nos. Beds- 20 Nos.

(d). Dispensary of Dr. Sanjay Shukla within factory Premises is equipped with following:-
Phone No.- (0771) 2326077
Doctor – 1 No., Compounder- 1No., Nurse – 1 No., Beds- 2 Nos.

8.7 FACILITY OF PERSONAL PROTECTIVE EQUIPMENTS IN AFAL

Nos. of emergency respirator kits available.	No. of self contained breathing apparatus	No. of Air line respirator	No. of canister respirators.	Other PPE's	Neutralisation facility provided for neutralizing chemicals.
04 Nos.	03Nos	Nil	02Nos.	List of other PPE's are given as under (in sufficient Nos.)	Since there is no any chemical are used or produced as a waist in our Unit. Generated scrap is filled in low lying area of Factory.

8.7.1 DETAILS OF PPE's

The following protective devices have been used and safety measures were taken to protect the person from the direct effect of hazardous substances.

01. HAND GLOVES - 120 Nos.

All workers are strictly instructed to wear leather/asbestos hand gloves during handling hot material & scrap, and Rubber hand gloves for electrical work and other.

02. SHOES/GUM BOOTS - 180 PAIRS

Shoes/Gum boots are provided to all persons working on the floor of furnace and in plant.

03. APRON - 90 Nos.

Heat/ chemical proof apron is provided to all workers, who they are engaged in the production process, to save their body from direct contact of Heat/chemicals.

04. GOGGLES - 160 pairs

While handling the Furnace process/hot steel pieces, workers and staff are instructed to wear goggles, to save the eyes.

05. EAR PLUGS–185 Nos.

All workers working in Noise Zone more then 80 decible are instruct to use Ear plug . Ear Plugs are provided to all worker to keep with them and use .

06. NOSEMASK - 280 Nos.

Sufficient Nos. of Nose masks are in each floor, and the workers and the staff are strictly instructed to wear these masks before they start their work and as per Covid Rule. Workers handling Raw Material specially Coal, Iron ore and Manganese ore are strictly wear the Hepa Filter Mask, Sergical Mask, N-95 (triple layer) and Cloth Nose mask to avoid the inhaling of fine dust of these material

07. HELMET - 180 Nos.

Sufficient Nos. of Helmet are there no any worker is allowed to enter the factory without wearing Helmet on his head.

08. FLUSH & SHOWERS - 10 Pts.

Flush and showers are made available in few points of working area where Oils are being handled. If any mishaps take place, these can use for an immediate wash of the victim.

09. EMERGENCY KIT TO STOP OIL LEAKAGE - 04 Nos.:

A set of leak stop emergency kit is kept available in Oil/Chemical storage area. The workers and supervisor are well trained in handling the same.

The above items shall be inspected and ensured serviceable by the concerned shift In-charge of the section/location on regular intervals.

Any damage/deterioration/defect noticed in any of the above mentioned Personal Protective Equipment shall be highlighted in the record register to be maintained by the shift in-charge and accordingly, replacement of the same shall be ensured.

8.8 PROTECTION SYSTEMS

The M/S ALOK FERRO ALLOYS LTD. (AFAL) which consist Submerged Arc Furnaces and Power Plant i/c Solar Power Unit has been carefully designed and protected by sophisticated instrumentation, valves, controls and Inter-locks and it properly maintained &operated so the above risks negligible. To run the plant and to control the process, experienced, qualified and trained personnel are deployed. Where necessary the employees are equipped with required personal protective equipment for protection against specific hazard. The plant is provided with fast response fire detection and fighting facilities like smoke detectors, emulsifire, sprinklers etc., and emergency trip and shut down systems.

Fire hydrant system is provided to facilitate supply of water under adequate pressure round the clock to the fire vulnerable areas/points/plant sections. The fire fighting equipment like Fire Extinguishers and Sand Buckets are also be provided at conspicious points to over come the emergency due to Fire.

8.9. MUTUAL AID/CONSULTATION

We have Joint Consultation with the Industries located in near by. We all are bound to provide Help/ Aid to each other in case of any type of emergencies, with all our available possible measures on calls. The Nearby/adjacent Units are listed below with them we have mutual coordination to help each other at the time of any emergency arises. Telephone/Mobile Nos. of Occupier/Fact. Manager for contacting them and the major facility available in their units are listed below :-

Sl. No	Name Of Near By Factory	Distance From Our Unit	Person to whom make contact	Contact telephone /Mobile Nos.	Facility available In Factory to over-Come emergency
1.	M/S HIRA STEEL & POWER LTD	1.0 KM	Occupier /Manager	0771-3092360	Trained Emergency Team Equi- pped with PPE's Sufficient Fire Extinguisher &With Fire Tender (Tanker with Pump)
2.	M/S R.R. ISPAT (A Unit of Godawari Power & Ispat Ltd.)	0.5 KM	Occupier /Manager	0771-4082350	Trained Emergency Team Equi- pped with PPE's Sufficient Fire Extinguisher &With Fire Tender (Tanker with Pump)
3.	M/S HIRA FERRO ALLOYS LTD. UNIT-2	0.8 KM	Occupier /Manager	0771-4082450	Trained Emergency Team Equi- pped with PPE's Sufficient Fire Extinguisher &With Fire Tender (Tanker with Pump)

8.10 WORK ENVIRONMENT QUALITY

Work Envirnoment Quality is very nice, Management try to give pollution free working atmosphere throughout the Factory premises. Time to Time we arrange monitaring for the pollution in & nearby the Factory to know about the Pollution/Contamination of atmosphere due to handling /processing of chemicals and other materials used for manufacturing.

A report of monitiring about the Working Envirnoment (Pollutant Content) Quality is given as under.

Pollutant	Shift PPM	TWA
CO2 & Dust	08	15
CO	0.2	0.5
Sulphuric Acid	0	1
Mn Ore	0	C 05

8.11 PROCEDURE TO SHUT DOWN THE PLANT

In case of emergency or in normal position the Plant will shut down by work Incharge only after the permission of CIC/WIC. For Shut down the Plant safely following steps are followed.

1) Ensure that no worker is around the moving m/cs. 2) Power is cut off from the sub panel.
3) Power is cut off from main panel 4) Thus all plant/m/cs are closed automatically.

We have adopted the system that due to any malfunction in m/cs or at furnace The plant will shutoff automatically. For watching all functioning work in-charge Keep proper watch on whole plant and on control panels.

8.12 EMERGENCY TEAM AND THEIR DUTIES FORMED IN M/S ALOK FERRO ALLOYS LTD..

SHRI AJAY DUBEY (DIR) (CIC)
:
SHRI AJAY DUBEY (DIR) (WIC)
:
SHRI FIROZ KHAN (GM) (ASST. WIC)
:

FIRE FIGHTING TEAM	RESCUE OPERATION TEAM	CARDON TEAM
: OFFICER -IN CHARGE	: OFFICER -IN CHARGE	: OFFICER -IN CHARGE
: SHRI PRAMOD CHANDRAKAR	: SHRI K,P. TIWARI	: SHRI VIKASH PRASAD
ASSISTANT	ASSISTANT	ASSISTANT
: SHRI HANUMANTA BADDI	: SHRI SANKET SHARMA	: SHRI TUSHAR SAHU
: SHRI MOTI LAL SAHU	: SHRI SUNNY JOSEPH	: SHRI VEMAN SAHU
& Member of Crew Party	& Member of Crew Party	& Member of Crew Party

Medical Crew Head- : DR. SANJAY SHUKLA
Medical crew Members : SHRI MOTILAL SAHU AND SHRI SUNNY JOSEPH

DUTIES :	DUTIES :	DUTIES:
1.With the help of Fire Fighting equipments try to control the light fire/Leakage.	1. Inform to all concerning officers i/c Fire brigade services on phone regarding the Fire/Leakage in plant	1. Shut off all switches & cut off Power from main switch room.
2.Inform to Operators to shut down the process/ machines.	2. Keep all the important document/portable m/cs in the safe place.	2. Fulfill the supply of Fighting equipments to the emergency Tea.
3. All the workers working around the affected area are carried away except to the the emergency team persons-	3. Control the traffic at main gate of Plant & at place	3. Carry and guide the coming Fire brigade services to the point of fire/leakage.
	4. Give First Aid to victim & refer him to Hospital.	4.Follow the instructions From Fire Officer.
	5. Wait and follow the further instructions from Officer.	

CHAPTER - 9

ACTION PLAN TO MEET EMERGENCY

The main aim of **M/S ALOK FERRO ALLOYS LTD**. is SAFETY FIRST.
We take care of all safety steps, a detail information about the Action to overcome any type of Emergency may arise in our Unit are as under:

9.1 PROCEDURE TO MEET FIRE & OTHER HAZARD :

9.1.1 FIRST INFORMATION OF EMERGENCY

As soon as an emergency is noticed by any of the **AFAL** Staff, he shall shout to divert the attention of the people at the place of Emergency, and subsequently informed to the ECC Emergency Control Center by telephone & to the Shift Engineer/In-charge and also to the Security/Fire Officer. The Shift Engineer and the Security/Fire Officer shall immediately inform about Emergency to the Chief Incident Controller and the Works Incident Controller. In addition to this, they shall also inform to the Telephone Operator so as to intimate to all emergency team members and to other agencies accordingly. As per the instruction of CIC/WIC.

9.1.2 PROCEDURE TO MEET DUST (SILICA/ANY MATERIAL DUST) HAZARD :

We have provided best PCE device and Bag Filter to arrest almost all silica dust may be emitted from any m/cs or any section of plant to avoid the possibility of Silicosis Disease to any of our worker. Also we try to make dust less (silica/any material dust) atmosphere in our Factory by keeping good quality House keeping and cleanliness in all over the plant, for this we alert all our workers time to time.

9.1.3 DECLARATION OF EMERGENCY

CIC/WIC After consulting with each other and to know about the magnitude of emergency and also to be consult with officer in-charge declare EMERGENCY in the plant. For this he himself are instruct security personnel to raise the EMERGENCY SIREN.

9.2 ACTION IN CASE OF LEAKAGE/SPILLAGE OF OIL

The Section In-charge/Operator as he know about the leakage/ spillage. The Operator/In-charge staff of These section, (who are fully trained to seal any such leakages) with the help of emergency kit stop leakage in shortest possible time and neutralize the leaked Oil, the other members are also be ready for help to control the situation.

9.3 ACTION TO FIGHT FIRE HAZARD

9.3.1 Emergency actions within 15 minutes of occurrence

a. Start water sprinkling on the affected plants, and on other Plant area.
b. Stop the plant and stop leakage of any chemical/Oil.
c. Inform to the Communication Officer and to CIC/WIC.
d. Shut down electric supply to the entire factory.
e. Dilute the escaped chemical if any by spraying water/lime.
f. Fight fire with CO_2 and chemical powder extinguisher only.
g.Escape out workers except those trained for emergency operations.

9.3.2 ACTION IN CASE OF FIRE

The following actions will be followed to avoid fires ;

1.Any person discovering the fire shall attempt to put off the fire by using the first and fire-fighting appliances available.

2.Simultaneously, start shouting FIRE, FIRE, AAG, AAG till assistance arrives,

3.He will inform CIC/WIC on phone/intercom about the fire immediately. So the CIC/WIC themselves are instruct to Security personnel to raise Emergency Alarm.

9.3.3 ACTION BY THE PERSON NEXT ARRIVING AT THE SCENE OF FIRE

Any person hearing the shout fire/fire will immediately rush to the scene of fire and start ;

a. Shouting fire, fire, fire/ aag, aag, aag

b. Assist rescue and fire fighting operation by using equipment and extinguishers available nearby and intimate fire wing if not done already.

c. Guide/assist fire fighting personnel.

9.3.4 ACTION BY FIRE FIGHTING PARTY :-

a. The fire-fighting party soon after reaching the place of fire shall start rescue and fire/fighting work as quickly as possible and keep passages doors etc., clear for evacuation.

b. Arrange salvage operation protecting valuable property or covering up of machineries.

c. Keep the area clean of the unnecessary personnel.

d. Complete the fire brigade operation.

9.3.5 ACTION BY PLANT INCHARGE

a. Immediately on hearing the fire out break, he shall rush to the scene of fire and assume charge of rescue and fire fighting operation and ensure that the information is passed to the fire station; he will inform the Key Persons about the fire. Post a guide to direct the fire personnel to the scene of fire, if not already done.

b. If required, get the electrical connections cut off from the main switches.

c. Guide fire personnel about any special hazard and ensure successful fire fighting.

9.3.6 ACTION BY INCHARGE FIRE FIGHTING

The senior most officer present at the scene of fire irrespective of the fact whether he Is controlling the section or not shall assume control, assess the situation and take action to extinguish or control the fire as expediously as possible. He shall consult Senior Officer for further action.

9.3.7 ACTION/DUTY OF MEDICAL CREW and FIRST AID TEAM:

Company has appointed a Doctor on Contract Basis and trained person are employed to give the First Aid/ Medical assistance to the victim at site and to carry him for the further treatment (if required and refer by doctor/First Aid person) to Hospital/ Medical Center inside/off side the Factory.

Duty/Action of Medical Crew is as follows :

1) As after knowing /hearing/receiving the information about accident in Factory one of the First Aid trained person with Doctor (if available) rush to the site and give First Aid to the victim if there, simultaneously inform the doctor/senior person about the condition.

2) After giving First aid call Ambulence/vehicle to carry the victim for providing better Medical facility, to the medical center/Hospital. Vehicle used as Ambulance of Regd. No.- CG04-NE-1903 and we have contact other hospital also to avail us Ambulance at the time of Emergency.

3) Allow the Ambulence/evacuation vehicle/Out side medical agency to go through Factory Gate without normal Cheks.

4) Rescue of Victims/Causalities on priority basis.

5) To take and pass out the information to the senior of Victim during treatment in Hospital/ medical Center.

9.3.7 ACTION/DUTY OF MEDICAL CREW and FIRST AID TEAM:

Company has appointed a Doctor on Contract Basis and trained person are employed to give the First Aid/ Medical assistance to the victim at site and to carry him for the further treatment (if required and refer by doctor/First Aid person) to Hospital/ Medical Center inside/off side the Factory.

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1) As after knowing /hearing/receiving the information about accident in Factory one of the First Aid trained person with Doctor (if available) rush to the site and give First Aid to the victim if there, simultaneously inform the doctor/senior person about the condition.

2) After giving First aid call Ambulence/vehicle to carry the victim for providing better Medical facility, to the medical center/Hospital. Vehicle used as Ambulance of Regd. No.- CG06-DC-4365 and we have contact other hospital also to avail us Ambulance at the time of Emergency.

3) Allow the Ambulence/evacuation vehicle/Out side medical agency to go through Factory Gate without normal Cheks.

4) Rescue of Victims/Causalities on priority basis.

5) To take and pass out the information to the senior of Victim during treatment in Hospital/ medical Center.

9.3.8 ACTION BY OTHER

a.Other section In-charges not involving in fire, immediately on hearing the fire alarm/emergency alarm he shall relieve all the personnel(under his charge) who are trained in fire fighting to proceed to the scene of fire to render assistance as required.

b.All other work shall normally go uninterrupted.

9.4 EVACUATION

In a major emergency, it will certainly be necessary to evacuate personnel from the affected areas and as a precautionary measures to further evacuate non-essential workers, in the first instance from the areas likely to be affected should the emergency escalate On evacuation, the employees should be directed to reach predetermined assembly point. This is to ensure that employees don't have to appr -oach the affected area /point.

9.4.1 INFORMATION TO GOVT. DEPARTMENT

CIC/WIC will inform to all Govt. departments as well as to Factory Inspector about the committed Emergency, and try to implement the suggestions from them.

9.5 POST EMERGENCY OPERATION

After the fire, is extinguished from entire place/areas the team in-charge will inform to the CIC/WIC about the situation so that the all clear signal will be sounded on the electric siren by the consultation with Chief Incident Controller and Work Incident Controller.

9.5.1 ALL CLEAR SIGNAL

After over coming of emergency arise, works incident controller will communicate to Chief Incident Controller about it. After verification of status, the Chief incident controller will communicate and announce the all clear instruction to sound the All Clear Signal.

9.5.2 ACTION OF SALVAGE TEAM

After overcoming the Emergency occured in factory the Salvage Team will act to clean/normalise and to decontaminate the affected Area /Section, so that working/production can be restarted. The Action taken by Salvage Teams are as follows:-

a.Clean/Remove the vapour of toxic material present in atmosphere by means of exhaust/sucking equipment.

b.Proper checking/maintenance of all Plant & Machineries of affected section and to maintain them in working condition

c.Find out the reason due to which emergency has occured and after analysing develop corrected plan that it will not be repeated in future.

d. Inform to CIC after making affected area as good as it was, for restarting the production/taken in use.

9.5.3 ACTION OF MEDICAL CREW and FIRST AID TEAM:

Action of Medical Crew and First Aid Team is as follows :

a) As after knowing /hearing/receiving the information about accident in Factory, one of the First Aid trained person with Doctor/nurse (available in OHC) rush to the site and give First Aid to the victim if there, simultaneously inform the doctor/senior person about the condition.

b) After giving First aid call Ambulence/vehicle to carry the victim for providing better Medical facility, to the medical center/Hospital.

c) Allow the Ambulence/evacuation vehicle/Out side medical agency to go through Factory Gate without normal Cheks.

d) Rescue of Victims/Causalities on priority basis.

e) To take and pass out the information to the senior of Victim during treatment in OHC/ Hospital/ medical Center.

9.5.4 ACTION OF OTHER TEAM/PERSONNEL

a. On hearing the all clear siren, all persons of the plant section concerned, other than fire staff return to the place of duty and resume duty.

b. Fire fighting party assisted by the staff as required shall return all first and fire fighting appliances to the exact locations and assist salvage work if so required.

c. The Main Incident Controller and Work Incident Controller along with the concerned plant in-charge and Sr. Security Officer shall thoroughly examine the premises of fire and if satisfied, advice for restart up of plant shall be issued by the Chief Incident Controller.

d. The Security Staff shall protect or guard the area till the security of all movable articles is ensured by keeping them in safety custody or removed to safety zones.

e. Enquiry committee shall be constituted by the Manager to investigate the reasons and to take preventive action to avoid re-occurrence in future.

Arrangement for training of worker or workers neighbour as how to act in an emergency and use different equipments necessary for ensuring safety at hazardous works/situation.

In AFAL workers have been trained to take necessary action in case of emergency. Mock drill is conducted for security personnel and Process Plant personnel to meet the emergency requirements.

CHAPTER - 10

ACTION & SAFETY MEASURES FOR ELECTRICAL INSTALLATION

10-1 GENERAL ASPECTS

In this modern world of civilization electricity has played an important role. It become very essential in our day to day life. Its need and demand is same as in home, in office and factory. Electricity is blind, impartial machines and human bodies are treated in the same way, it passes through both of them. The current flowing through a man depends upon the voltage and man's resistance. Normal human resistance various from 1000 to 10000 Ohms. If even 5 milli ampere current pass through a heart of man it will collapsed. So whenever a part of human body come in contact of electricity the injury may occur depends upon type and quantity of current and self resistance of human body. Thus electric injuries may occur any where. It may be caused by direct current (D.C.) or by lightening. The severe ness of the injuries by electric shocks depends upon :--

1 The amount of current flowing through the body.

2 The path of current has taken through body to the earth, a weaker current passing through heart is more dangerous than a relatively stronger current passing through any other parts of body.

3 Length of time victim is in contact.

4 Type of electric energy.

5 Physical condition of victim.

10.2 ELECTRIC SHOCK

10.2.1 To avoid Electrical Shocks it is very important to understand how to use electricity very safely. It is 100% possible to avert the electrical shock at all times. A little alertness on the part of Electricians, Electrical Supervisors and workers may 100% avoid any Electrical shock accident. It is therefore advised that the Electrician should observe the following:

1. He must ware rubber sole shoes.
2. He must use rubber gloves to attend electrical repair.
3. He should ensure to switch off the line before attending to work.
4. He should check the point of work, by a Electric Taster, to ensure that there is no power at point.
5. All the point of work should be properly earthed.

10.2.2. It has been observed that most of the Electricians know about the above but still from time to time news of accidents is heard. It is always due to negligence, over confidence or hurry to finish the work, carelessness in attending the works. It is therefore advised to always alert the electricians of these. It is also advised that every equipment and cable must be properly isolated with suitable isolating device and each of these isolations are identified by proper marking. The suitably isolators are installed, prop -erly marked, locked and out point circuit should earthed.

10.2.3 SIGNS & SYMPTOMS IN ELECTRIC SHOCK

1 Sudden spasm
2 May be to release hands which holds the life points.
3 Burn.
4 Severe pain.
5 Cries aloud and falls on the ground.
6 Unconsciousness.
7 Breathing impaired or stopped.
8 Burns leading to severe surgical shock.

10.3 FIRST AID :

"ANY DELAY IN FIRST AID OF THE EFFECTED BODY IN ELECTRIC SHOCK IS A DELAY FOR EVER". Hence the first aids must not get excited and must not in-danger his life.

1 The current must be cut off or the plug should be pulled out.

2 The first aide must not touch the victim or the live conductor.

3. It is difficult to cut off the current the victim has to be separated by using a dry coat rope, stick, etc.

4 If there is dry wooden chair or rubber sheet the first aid must stand on it and then separate the victim.

5 If the cloths are smoldering the spark should be extinguished.

6 Artificial respiration is to be started immediately. This may be done whoever the victim is in unconscious while and pulse less. The artificial respiration should be continued till the doctor has arrived. One may like to continue for at least 8 hours before abandoning the case as dead. When the patient start swelling, one may understand that spontaneous breathing is being revived. Artificial respiration should be continued till normal movement of breathing is fully established, as the respiration may fail again if left earlier.

7 A blanket should be kept & put around the patient, the patient must be kept warm to treat he shock. He may be given warm sweet drinks if he is conscious otherwise not, as it may harm him.

8 Superficial burns of lightening, strange may be covered with a septic dressing. The deeper burns caused from contact with live conductors may be covered with clean sheet and the patient evacuated to a hospital without any further delay.

9 External cardiac massage may be given if the pulse is not felt or even artificial respiration.

10.4 SAFE USE OF ELECTRICITY:

While doing some installation himself, the only way this can happen is a mistaken on the part of the electrician to conceive on electrical conductor or starter to be dead when it is really live of while the electrician is working on dead line but here is in the proximity a live line which electrician promised himself not to touch while carrying out he work and the dead line but unfortunately during the course of his work he forgets and in adverantly touches the live line which brings about his own end. Every equipment and cable has been provided a suitable isolating device so as to ensure isolation and if each of these isolators are identified by proper marking.

10.5 SPECIAL CARE FOR USE OF ELECTRICAL APPLIANCES

We have seen that a number of accidents take place from time to time in any nation every year due to electro-qution. It may be surprising to note that carelessness and ignorance is the root cause in almost all such accidents.

To avoid such accidents, following safety measures are suggested.

1.Do not use damaged plugs, wires, switches, etc.

2.Do not touch the electrical appliances with screw drivers etc., until and unless the supply is cut off.

3.Do not touch the appliances with wet helmet when supply is there.

4.Do not connect a number of appliances in a single point. Risk of fire will be obvious.

5.Do not keep wires hanging or loose but fittings should be proper & safe.

6.Use of only three pin plug is advised as one point has earthing facility.

7. In ceiling fans, nuts and safety pins fitted must be checked periodically.

8.Connect the supply to appliances through plugs only do not insert naked wires, match sticks or wooden stick.

9.Defective appliances should be immediately rectified through a competent person.

10.Power supply should be cut off before attending a repair of equipment.

11.Keep heaters or room heaters away from the material which are sensitive to fire.

12.Use the appliances as long as you actually require. After the job is done switch off the supply of save energy.

13.Fuse wire of proper size should be used.

14.Clean the dust etc. of appliances before using.

15.Do not rush to save electrocuted person without taking proper care.

16.Before touching the affected person switch off the main.

17.Use rubber insulated tools and rubber hand gloves for working during supply or in its line.

18.Where there is danger caution board or HT line, please keep yourself away from site.

19.Always prefer equipment of ISI marked.

The above precaution certainly saves from the accidents in factory as well as at homes.

10.6 SUPPLY FAILURE

In case fails due to internal problem or due to fault in Generator supply then:

1. First of all MOCB is tripped and fault detected.
2. Following safety equipments are provided to Electrician:
   a. Hand Gloves
   b. Goggles
   c. Safety Apron
3. After detection of fault it is rectified and informed to General Manager (Works) before switching on the line. Then the line is switched on.
4. In case of failure from D.G. side they are contacted immediately to rectify the fault.
5. The following safety equipments are provided in control room for any emergency:
   a. First Aid Box
   b. Artificial respiration chart
   c. Discharge rod
   d. Hand Gloves
   e. asbestos apron
   f. Goggles
   g. Fire Extinguishers and Sand Buckets

10.7 EXPLOSION.

It has also been observed that some times explosion occurs in oil Circuit Breaker and in Oil filled Transformer. Such explosion takes place only when oil is overheated due to increase in the tempe -rature of winding, which may be result of overloading. To prevent overloading safety devices and control equipments are properly installed. The Sub Station transformer is operated under the specified load only. The current is constantly monitored and at the increase of current the load is reduced. Besides this oil temperature gauge is installed in transformer and a hooter is also installed the moment temperature increases that the specified - limit the hooter get activated and than immediately load is reduced or power is switched off to cool the transformer. Besides this periodical testing of tansformer and cable and oil will be done, to avoid explosion.

10.8 POWER CABLES :

It is to be secured properly it is to be protected from physical hazards. All junction boxes should be protected and supported, checking of earthlings is necessary. All junction boxes should be fitted with compound

10.9 TRANSFORMER :

(A) Distribution Transformer

Distribution Transformer shall be located in sub-station in free air and shall be mounted at Height on Ridder to protect from Physical damage. Temperature of oil should be continuously monitored and the quality of oil should be checked periodically.
The transformer are located in fresh air its location is free from physical hazards checking of trans -former for over heating is done time to time to avoid explosion.

(B) Sub-Station

Sub-section must be properly fenced and to avoid entry of reptiles such as snakes etc., round rabbles must be properly and evenly distributed on ground.

The following Check Points must be considered:

a. Checking the quantity of oil.
b. Checking of any leakage from transformer.
c. Checking of gasket or radiator tube or transformer.
d. Suitable extinguisher used must be installed nearer to the transformer.
e. Checking of control switches, starters.
f. All operating handles and reset buttons should be free for operation.
g. Checking of all type of protection in relay.
h. Terminal of cables must be checked periodically.
i. Checking of contacts and replacing them.
j. Periodic checking of MOCB and ACB.

The Electric supply to our this Unit is 8000 KVA through our own Switch Yard it also used for Power generation of 8.1 MW and allied equipment as per norms. We have 1Nos. D.G.Sets of capacity 125 KVA, placed in D.G. room near to the Sub-station away from processing area, its vent is kept in such direction so that there will be no any chance of fire. D.G. Set is used mainly to meet the power at the time of failure and to meet the emergency services. All types of protection are provided in Sub-station and Switch Yard which are essential and foremost. Also we have provided Lightning Arresters.

CHAPTER - 11

TRAINING, DRILL & FUNCTIONING OF EMERGENCY PLANNING

11.1 FULL MOCK DRILL MONITORING COMMITTEE

For effective functioning of the Emergency Planning during the need of hours, full Mock Drill shall be carried out Twice in a Year at least. (Detail of Rehearsal Schedule Annexed as Annexure-4)
The committee may invite any other official/expert, if considered necessary.
The Committee shall supervise the following activities:

1. Functioning of Emergency Control Center very effectively. Especially, to ensure availability of all facilities, etc. as mentioned in the plan and to make the function healthiness.

2. To evaluate communication of the Emergency Plan to all segments of employees to familiars them about their responsibilities in case of any disaster, including evaluation of behaviour of employees and others.

3. To ensure that the necessities under material assistance scheme is properly documented and the concerned employees are fully aware in this regard.

11.2 EMERGENCY PLANNING EFFICACY DRILL MONITORING COMMITTEE

The Emergency Planning Efficacy Drill shall be carried out once in every six months.
The E.P. Efficacy Drill shall be carried out under the super vision of E.P. Efficacy Drill Monitoring Committee.The committee may invite any other Official(s)/Expert(s) to assist its functioning.

The requirements given below related to the drill activities shall be necessarily supervised by the committee for its being effectiveness. The Committee shall also ensure meeting with these requirements to make the drill useful and result oriented.

1. All members are trained about their responsibilities/duties. All of them are well aware of the evacuation routes, direction of evacuation, the equipments to be used during evacuation or the evacuation.

2. All employees are fully trained to rescue their colleagues, who are affected due to cause of disaster. In case they are unable to rescue their colleagues, they should know to whom they are to inform about such person(s).

3. All employees are fully trained in First-Aid use of desired equipments including breathing apparatus. First-Aid box, etc.and that, all these First-Aid appliances, etc, are available at the desired locations.

4. All warning alarms are functional.

5. All Telephone Lines/Communication Systems are provided in the Control Room.

6. All employees to be made aware of the authority declaring EMERGENCY.

7. Concerned official(s) authorised to inform the District Authorities, State Authorities and Corporate Center in the state of EMERGENCY are well aware of their role.

11.3 EMERGENCY PLANNING MOCK DRILL

Mock Drill is the exercise to ascertain effectiveness and proper implementation of the EMERGENCY PLANNING to counter with any probable disaster with full resources fully and properly utilised to minimise the loss to lives and properties as well as to the environment.
The MOCK DRILL exercise shall have the following motive to work out the existing system related to EMERGENCY PLANNING.

1. Effectiveness of the Emergency Planning.
2. Availability of all facilities as per system laid down in the On-site Emergency Planning book.
3. constraint being faced to meet with the requirements.
4. Any shortcoming encountered while doing the Mock Drill exercise.
5. Improvement(s) needed to make the Mock Drill more effective and more fruitfully.

The outcome of each Mock Drill Exercise shall be reported to the Head of Plant by the Chairman of Efficacy Monitoring Committee in a written report covering about mentioned and any other imp -ortant points related to the On-site Emergency Planning and its Mock Drill Exercise, with the assistance of the committee members. Suggestions, recommendations submitted by the committee, if any for improvement of the plan shall be rigorously worked out considering all pros and cons to arrive at a feasible and more effective working system. The decision so taken and amendment if so made in the plan/system shall be intimated to the Directorate of Factories, Chhatisgarh Government for obtaining approval there of.

11.4 MOCK DRILL EXERCISE

It is imperative that the procedures laid down in the On-site Emergency Plan are put to the test by conducting full Mock Drill outlast once in a six months time period.
The Mock Drill shall be carried out step by step as stated below to ascertain its effectiveness and to obtain the desired result thereof:

FIRST STEP:
Test the effectiveness of the communication system.
SECOND STEP:
Test the speed of the mobilisation of the plant.
THIRD STEP:
Test effectiveness of Search, Rescue and Treatment of casualties.
FOURTH STEP:
Test Emergency Isolation and Shut Down as well as the remedial measures taken on the system
FIFTH STEP:
Conduct a full rehearsal of the actions to be taken during an emergency.
FINAL STEP:
Prepare the Mock Drill Exercise Report covering all points related to deficiencies, aviations, and short comes, lacunas, constraints, etc. encountered during the exercise.
Recommend suitable measures to counter with above mentioned evils and also suggest, if there is any thing to add for improvement of the system.

Mock Drill : Detail Report of conducted Mock Drill are as given in annexure-4 Page No. 77-81 :-

CHAPTER - 12

EMERGENCY POLICE SERVICE :

THE MAIN TASKS

The Main tasks that the Police may be required to perform during the such calamitous are mentioned below :

12.1.1 Assistance in stopping/controlling the sources of danger.
12.1.2 Assistance in securing human being and cattle trapped to the affected area.
12-1.3 Assistance in rendering first aid and medical health to those need.
12-1.4 Maintenance of order at the scene of disaster and prevention of anti social elements from taking advantage of the situation and becoming active.
12-1.5 Assistance in evacuation persons not affected so far but ;likely to be affected.
12-1.6 Assisting in feeding and clothing of the victims rescued.
12-1.7 Removal of the dead bodies, their identification and disposal.
12-1.8 Assistance in providing shelter to those rendered homeless.
12-1.9 To prepare list of missing persons and
12-1.10 To communicate the information of disaster to other authorities of disaster control.
12-1.11 To contact responsible person in factory to take appropriate steps to minimise the damage due to disaster.

12-2 CLASSIFICATION OF THE CONTINGENCY :

In general Contingency will be classified in either of the following categories by the Police Head Quarters of Raipur.

a) MAJOR : A Calamity which is affecting the factory premises concerned and its immediate vicinity with causalities less than 10.

b) SERIOUS : A disaster which is affecting considerable jurisdiction of a Police Station or any important part of city.

c) GRAVE : A major portion of the city or almost the whole of the city is affected.

By viewing the above calamity and the process of manufacturing to be carried in the unit of **M/S ALOK FERRO ALLOYS LTD...** Only MAJOR type of calamities is possible in the factory.

12-3 ACTION

The major contingency will be handed by the concerned Police Station, i.e., Urla at a distance of 1 KM from Factory, Police Station, Urla under immediate supervision of the concerned Station Officer (S.0.) and in consultation with Deputy Superintendent of Police (Rural Head Quarters). The information shall be given to the Police control room of every incident and steps taken promptly. In case of calamity Police Service is available on Phone No.100 & 2323100 and of Police Station Urla- 0771- 2323513.

CHAPTER - 13

MISCELLANEOUS :

13-1 SAFETY PRECAUTIONS IN LOADING/UNLOADING :

a) Where trucks loading/unloading job is done by crane, none should be allowed to remain nearby.

b) During unloading of scraps and its shifting a proper equipments is given to worker and care should be taken scrap must not spread any where.

13-2 SAFETY PRECAUTION IN CIVIL WORK AND JOB AT HEIGHT:

* For the civil construction work always engaged trained workers.

* Skay folding and shuttering materials must be of sound condition.

* The civil workers must not move from his work site to other Plant Area, until & unless he not to do so.

* While performing the work at height proper safety/protective, appliances must be used by worker.

* The Maintenance work of height must be performed under the supervision of Sr. Officer

13-3 SAFETY PRECAUTIONS FROM OUTSIDE MITIGATION /BOMB DISASTER :

a) There may be possibility of Bomb Blast by any terrorist activities , in such condition We try to evacuated all Factory premises, and try to save the life of workers.

b) Our Safety officer is wel trained to recgnise the Plant worker and entry of outsiders is ensured only after proper checking. He is also trained for any such Disaster.

c) There may be possibility That due to explosion in any nearby Industry our Plant area will not be affected. Because any such disaster will be limited up to their own premises but , all our Plant worker will be alert about that and Officers are ready to take safe step.

13-4 SAFETY PRECAUTIONS FROM SIESMIC DISASTER :

a) As viewing the Seismic Zoning Map of India published by GSI in 1935 and currently updated, Our Ferro Alloy & Power Plant come in the Area marked as least active Zone (Zone- II). The IS code assigns zone factor of 0.10 for Zone-II. Mean to say our Plant Area get affected or not by Seismic pressure, the earthquake of intensity 2.3 to 2.5 may be possible.

b) All civil construction of Factory Shed/Structure are designed and constructed by viewing this Seismic Pressure. Even if If there may be possibility of Seismic Disaster arise in this region, then in such condition/circumstances, We try to evacuated all Factory premises, and try to save the life of workers.

ANNEXURE-1

IMMEDIATE ACTION IN CASE OF ACCIDENTS IN LABORATORY DUE TO CHEMICALS

SL.NO.	ACCIDENTS	FIRE AID
1.	Combustible liquid	Don't run abbot, Lie down and roll on the floor - wrap the victim by blanket.
2.	Large Heat burn	Treat with gauge, thoroughly socked in normal saline
3.	Small Heat burn	Treat with anti burn cream.
4.	Skin of Eye effected by caustic liquids	Immediately wash caustic liquid from the from the skin of Eye nearest tap.
5.	Skin affected by a) Acid b) Alkali c) Bromine d) Silver Nitrate	 Apply Sodium bi-Carbonate solution Apply dilute Ammonium chloride solution Apply dilute Ammonium as quickly as possible than apply a thick paste of Sodium Bi- Carbonate and water. Apply normal saline solution
6.	Eye affected by caustic liquid	Apply Normal Saline Solution with an eye bath
7.	Discomfort due to breathing small quantities of chlorine or bromine	Continuously shill Ammonia Gas from bottle of dilute Ammonia Solution
8.	Chemicals in mouth	Spite chemicals from mouth and wash mouth thoroughly with water.
9.	Cuts	Apply surgical spirits or industrial methylated spirit and soft cream.

ANNEXURE – 2 STATE AUTHORITY OFFICERS

LIST OF IMPORTANT STATE/LOCAL AUTHORITY

SL.NO.	DESCRIPTION	PLACE	TELEPHONE/FAX NUMBERS
01.	COLLECTOR	RAIPUR	0771 2426024 (O 2423033 (R) 0771 2428824 (FAX)
02.	SUPDT. OF POLICE	RAIPUR GRAMIN	0771 2427316 (O 2423333 (R)
03.	CHIEF INSPECTOR OF FACTORIES	O/O CIF INDRAVATI BHAVAN 2ND FLOOR , C- BLOCK RAIPUR (C.G.)	0771- 2443515 (O)
04.	DEPUTY DIRECTOR OF IH&S.	O/O D.D. BUS STAND CAMPUS (OLD RTO OMNISSIONER 0FFICE) , PANDARI , RAIPUR (C.G.)	0771- 2433966 (O)
05.	POLICE STATION (NEAREST)	URLA THANA	0771-2323513 (O)
06.	CMO MECAHARA HOSPITAL , RAIPUR	MECAHARA	0771 2511201 (O) 2528481 (R)
07.	REGIONAL OFFICER (POLLUTION BOARD)	TATIBANDH	0771 2324997 (O)
08.	CSEB SUB STATION URLA	URLA	0771- 2322157 (O)
09.	FIRE BRIGADE RMC.	TIKRAPARA CHOWK ,RAIPUR	0771- 2774101 (O) 0771- 2774104 (O)

ANNEXURE - 3 LIST OF ACCIDENTS OCCURED AND THEIR POTENTIAL

S. No	Nature of Accident	Date of Accident	Name of Worker get Affected
	NO ANY		

Note:- Thus till date in last 2 years no any accident has occurred which has been duly reported.

ANNEXURE - 4 REPORT OF MOCK DRILL CONDUCTED IN OUR PLANT

Our Plant Management carried Mock Drill Rehearsal Time to Time (at least twice in a year) by Creating some false situation in some prompt area and the action taken by Safety Committee Team Member are detailed as shown below.

MOCK DRILL/REHERSHAL SCHEDULE-I given on Page- 65 - 66
Dt.-25-05-2022

MOCK DRILL/REHERSHAL SCHEDULE-II given on Page- 67 - 68
Dt.-18-11-2022

MOCK DRILL/REHERSHAL SCHEDULE-III given on Page- 69 – 70
Dt :-06-06-2023

MOCK DRILL/REHERSHAL SCHEDULE-IV given on Page- 71 - 72
Dt.-25-11-2023

MOCK DRILL/REHERSHAL SCHEDULE-V given on Page- 73 - 74
Dt.-24-06-2024

MOCK DRILL/REHERSHAL SCHEDULE-VI given on Page- 75 - 76
Dt.-20-12-2024

Note: As detailed earlier in future we will carried the Mock Drill Rehearsal in our plant time to time.

M/S ALOK FERRO ALLOYS LTD.
PLOT NO. - 458/1-459
URLA INDUSRTIAL COMPLEX, URLA, RAIPUR (C. G.)
Phone No. 0771-4042850, 860, 870,
E-mail- fkhan2409@gmail.com

(I) MOCK DRILL/REHARSHAL SCHEDULE Dt.-25-05-2022

1) MONITORING COMMITTEE

SN	Head Of Department	Name	Designation	Signature
1	Occupier & Fact Manager	Mr. Ajay Dubey	Director	
2	Head of Plant (Ferro)	Mr. Hanumanta Baddi	D.G.M. (Ferro)	
3.	Head of Plant (Power Plant)	Mr. Pramod Chandrakar	D.G.M. (Power)	
3	Manager Dept.	Mr. Tushar Sahu	Dy. Manager	
4	Operation Dept.	Mr. Ramesh Verma	Asst. Manager	
5	Maintenance Dept.	Mr. Nihar Ranjan	Asst. Manager	
6	Mechanical Dept.	Mr. Jai Prakash kashyap	Asst. Engineer	
7	Electrical Dept.	Mr. Ashok Kashyap	Asst. Manager	
8	Personal Administration Dept.	Mr. Hemant Patel	Asst. HR	
9	Quality Assurance Dept.	Mr. K. P. Tiwari	Manager	
10	Security Services Dept.	Mr. Jagdish Mishra	Security Manager	
11	Supervisor Furnace Section	Mr. Dinesh Sahu	Supervisor	

1) DETAIL OF MOCK DRILL/REHARSAL SCHEDULE

Date & Time	25/05/2022 04:30 PM.
Site / Location	Ferro Division
Situation	The Dummy Fire Created on Dumped Waste Cotton / Coal.
Incident Controller	Mr. Hanumanta Baddi

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2) ACTION OF COMMITTEE MEMBERS/WORKERS

Response of Workmen's	**As Soon Fire Near Furnace Section Seen By Mr. Brijesh Mishra (supervisor). He Shout FIRE – FIRE, and immediately Inform to the head Section Following acting Taken by them:-** **1. By Mobile Information Passed of Emergency (Fire) to Working In Company.** **2. He Told to assistant to Evacuated the section and most of Worker Evacuated Within 2-3 minutes, only few worker are there for help.** **3. Section head immediately rushed the place of Fire by Taking Fire Extinguisher Placed (near Refractory Store).** **4. With the help of Fire Extinguisher they Have Extinguished the fire within 5 Minutes.**
Response of Equipments	**Satisfactory**
Response Time (In Hrs.)	**2 Minutes**
Total Control on Emergency Situation	**Within 10 Minutes**
Deficiency (if any)	**NIL**
Corrective Action **Procedure Modification** **Equipments Replace** **Others**	 **N.A** **N.A** **N.A**
Preventive Action	**Periodical Fire Fighting Training and Awareness Program Should be Organize From Time to Time.**
Remarks Recommendations	**NIL**

Signature of
Incident Controller

Hanumanta Baddi

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(II) MOCK DRILL/REHARSHAL SCHEDULE Dt.-18-11-2022

1) MONITORING COMMITTEE

SN	Head Of Department	Name	Designation	Signature
1	Occupier & Fact Manager	Mr. Ajay Dubey	Director	
2	Head of Plant (Ferro)	Mr. Hanumanta Baddi	D.G.M. (Ferro)	
3.	Head of Plant (Power Plant)	Mr. Pramod Chandrakar	D.G.M. (Power)	
3	Manager Dept.	Mr. Tushar Sahu	Dy. Manager	
4	Operation Dept.	Mr. Ramesh Verma	Asst. Manager	
5	Maintenance Dept.	Mr. Nihar Ranjan	Asst. Manager	
6	Mechanical Dept.	Mr. Jai Prakash kashyap	Asst. Engineer	
7	Electrical Dept.	Mr. Ashok Kashyap	Asst. Manager	
8	Personal Administration Dept.	Mr. Hemant Patel	Asst. HR	
9	Quality Assurance Dept.	Mr. K. P. Tiwari	Manager	
10	Security Services Dept.	Mr. Jagdish Mishra	Security Manager	
11	Supervisor Furnace Section	Mr. Dinesh Sahu	Supervisor	

2) DETAIL OF MOCK DRILL/REHARSAL SCHEDULE

Date & Time	18/11/2022 04:10 PM.
Site / Location	POWER DIVISION
Situation	The Dummy Fire Created on Dumped Waste Cotton / Coal.
Incident Controller	Mr. Pramod Chandrakar

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3) ACTION OF COMMITTEE MEMBERS/WORKERS

Response of Workmen's	**As Soon Fire Near Power Section Seen By Mr. Sudhesh Shukla (Operator) .He Shout FIRE – FIRE, and immediately Inform to the head Section Following acting Taken by them:-** **1. By Mobile Information Passed of Emergency (Fire) to Working In Company.** **2. He Told to assistant to Evacuated the section and most of Worker Evacuated Within 2-3 minutes, only few worker are there for help.** **3. Section head immediately rushed the place of Fire by Taking Fire Extinguisher Placed (near TG Building).** **4. With the help of Fire Extinguisher they Have Extinguished the fire within 5 Minutes.**
Response of Equipments	**Satisfactory**
Response Time (In Hrs.)	**2 Minutes**
Total Control on Emergency Situation	**Within 10 Minutes**
Deficiency (if any)	**NIL**
Corrective Action **Procedure Modification** **Equipments Replace** **Others**	 **N.A** **N.A** **N.A**
Preventive Action	**Periodical Fire Fighting Training and Awareness Program Should be Organize From Time to Time.**
Remarks Recommendations	**NIL**

Signature of
Incident Controller

Mr. Pramod Chandrakar

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(III) MOCK DRILL/REHARSHAL SCHEDULE Dt.-06-06-2023

1) MONITORING COMMITTEE

SN	Head Of Department	Name	Designation	Signature
1	Occupier & Fact Manager	Mr. Ajay Dubey	Director	
2	Head of Plant (Ferro)	Mr. Hanumanta Baddi	D.G.M. (Ferro)	
3.	Head of Plant (Power Plant)	Mr. Pramod Chandrakar	D.G.M. (Power)	
3	Manager Dept.	Mr. Tushar Sahu	Dy. Manager	
4	Operation Dept.	Mr. Ramesh Verma	Asst. Manager	
5	Maintenance Dept.	Mr. Nihar Ranjan	Asst. Manager	
6	Mechanical Dept.	Mr. Jai Prakash kashyap	Asst. Engineer	
7	Electrical Dept.	Mr. Ashok Kashyap	Asst. Manager	
8	Personal Administration Dept.	Mr. Hemant Patel	Asst. HR	
9	Quality Assurance Dept.	Mr. K. P. Tiwari	Manager	
10	Security Services Dept.	Mr. Jagdish Mishra	Security Manager	
11	Supervisor Furnace Section	Mr. Dinesh Sahu	Supervisor	

4) DETAIL OF MOCK DRILL/REHARSAL SCHEDULE

Date & Time	06/06/2023 / 04:30 PM.
Site / Location	Ferro Division
Situation	The Dummy Fire Created on Dumped Waste Cotton / Coal.
Incident Controller	Mr. Hanumanta Baddi

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5) ACTION OF COMMITTEE MEMBERS/WORKERS

Response of Workmen's	**As Soon Fire Near Furnace Section Seen By Mr. Ajay Verma (Operator) . He Shout FIRE – FIRE, and immediately Inform to the head Section Following acting Taken by them:-** **1. By Mobile Information Passed of Emergency (Fire) to Working In Company.** **2. He Told to assistant to Evacuated the section and most of Worker Evacuated Within 2-3 minutes, only few worker are there for help.** **3. Section head immediately rushed the place of Fire by Taking Fire Extinguisher Placed (near Refractory Store).** **4. With the help of Fire Extinguisher they Have Extinguished the fire within 5 Minutes.**
Response of Equipments	**Satisfactory**
Response Time (In Hrs.)	**2 Minutes**
Total Control on Emergency Situation	**Within 10 Minutes**
Deficiency (if any)	**NIL**
Corrective Action **Procedure Modification** **Equipments Replace** **Others**	 **N.A** **N.A** **N.A**
Preventive Action	**Periodical Fire Fighting Training and Awareness Program Should be Organize From Time to Time.**
Remarks Recommendations	**NIL**

Signature of
Incident Controller

Mr. Hanumanta Baddi

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(IV) MOCK DRILL/REHARSHAL SCHEDULE Dt.-25-11-2023

1) MONITORING COMMITTEE

SN	Head Of Department	Name	Designation	Signature
1	Occupier & Fact Manager	Mr. Ajay Dubey	Director	
2	Head of Plant (Ferro)	Mr. Hanumanta Baddi	D.G.M. (Ferro)	
3.	Head of Plant (Power Plant)	Mr. Pramod Chandrakar	D.G.M. (Power)	
3	Manager Dept.	Mr. Tushar Sahu	Dy. Manager	
4	Operation Dept.	Mr. Ramesh Verma	Asst. Manager	
5	Maintenance Dept.	Mr. Nihar Ranjan	Asst. Manager	
6	Mechanical Dept.	Mr. Jai Prakash kashyap	Asst. Engineer	
7	Electrical Dept.	Mr. Ashok Kashyap	Asst. Manager	
8	Personal Administration Dept.	Mr. Hemant Patel	Asst. HR	
9	Quality Assurance Dept.	Mr. K. P. Tiwari	Manager	
10	Security Services Dept.	Mr. Jagdish Mishra	Security Manager	
11	Supervisor Furnace Section	Mr. Dinesh Sahu	Supervisor	

2) DETAIL OF MOCK DRILL/REHARSAL SCHEDULE

Date & Time	**25/11/2023 04:30 PM.**
Site / Location	POWER DIVISION
Situation	The Dummy Fire Created on Dumped Waste Cotton / Coal.
Incident Controller	Mr. Pramod Chandrakar

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6) ACTION OF COMMITTEE MEMBERS/WORKERS

Response of Workmen's	**As Soon Fire Near Power Section Seen By Mr. Bhikham Sonwani (Operator) . He Shout FIRE – FIRE, and immediately Inform to the head Section Following acting Taken by them:-** **1. By Mobile Information Passed of Emergency (Fire) to Working In Company.** **2. He Told to assistant to Evacuated the section and most of Worker Evacuated Within 2-3 minutes, only few worker are there for help.** **3. Section head immediately rushed the place of Fire by Taking Fire Extinguisher Placed (near Refractory Store).** **4. With the help of Fire Extinguisher they Have Extinguished the fire within 5 Minutes.**
Response of Equipments	**Satisfactory**
Response Time (In Hrs.)	**2 Minutes**
Total Control on Emergency Situation	**Within 10 Minutes**
Deficiency (if any)	**NIL**
Corrective Action **Procedure Modification** **Equipments Replace** **Others**	 **N.A** **N.A** **N.A**
Preventive Action	**Periodical Fire Fighting Training and Awareness Program Should be Organize From Time to Time.**
Remarks Recommendations	**NIL**

Signature of
Incident Controller

Mr. Pramod Chandrakar

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(I) MOCK DRILL/REHARSHAL SCHEDULE Dt.-24-06-2024

1) MONITORING COMMITTEE

SN	Head Of Department	Name	Designation	Signature
1	Occupier & Fact Manager	Mr. Ajay Dubey	Director	
2	Head of Plant (Ferro)	Mr. Hanumanta Baddi	D.G.M. (Ferro)	
3.	Head of Plant (Power Plant)	Mr. Pramod Chandrakar	D.G.M. (Power)	
3	Manager Dept.	Mr. Tushar Sahu	Dy. Manager	
4	Operation Dept.	Mr. Ramesh Verma	Asst. Manager	
5	Maintenance Dept.	Mr. Nihar Ranjan	Asst. Manager	
6	Mechanical Dept.	Mr. Jai Prakash kashyap	Asst. Engineer	
7	Electrical Dept.	Mr. Ashok Kashyap	Asst. Manager	
8	Personal Administration Dept.	Mr. Hemant Patel	Asst. HR	
9	Quality Assurance Dept.	Mr. K. P. Tiwari	Manager	
10	Security Services Dept.	Mr. Jagdish Mishra	Security Manager	
11	Supervisor Furnace Section	Mr. Dinesh Sahu	Supervisor	

7) DETAIL OF MOCK DRILL/REHARSAL SCHEDULE

Date & Time	24/06/2024 04:30 PM.
Site / Location	Ferro Division
Situation	The Dummy Fire Created on Dumped Waste Cotton / Coal.
Incident Controller	Mr. Hanumanta Baddi

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8) ACTION OF COMMITTEE MEMBERS/WORKERS

Response of Workmen's	**As Soon Fire Near Furnace Section Seen By Mr. Brijesh Mishra (supervisor). He Shout FIRE – FIRE, and immediately Inform to the head Section Following acting Taken by them:-** **1. By Mobile Information Passed of Emergency (Fire) to Working In Company.** **2. He Told to assistant to Evacuated the section and most of Worker Evacuated Within 2-3 minutes, only few worker are there for help.** **3. Section head immediately rushed the place of Fire by Taking Fire Extinguisher Placed (near Refractory Store).** **4. With the help of Fire Extinguisher they Have Extinguished the fire within 5 Minutes.**
Response of Equipments	**Satisfactory**
Response Time (In Hrs.)	**2 Minutes**
Total Control on Emergency Situation	**Within 10 Minutes**
Deficiency (if any)	**NIL**
Corrective Action **Procedure Modification** **Equipments Replace** **Others**	 **N.A** **N.A** **N.A**
Preventive Action	**Periodical Fire Fighting Training and Awareness Program Should be Organize From Time to Time.**
Remarks Recommendations	**NIL**

Signature of
Incident Controller

Hanumanta Baddi

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(IV) MOCK DRILL/REHARSHAL SCHEDULE Dt.-20-12-2024

1) MONITORING COMMITTEE

SN	Head Of Department	Name	Designation	Signature
1	Occupier & Fact Manager	Mr. Ajay Dubey	Director	
2	Head of Plant (Ferro)	Mr. Hanumanta Baddi	D.G.M. (Ferro)	
3.	Head of Plant (Power Plant)	Mr. Pramod Chandrakar	D.G.M. (Power)	
3	Manager Dept.	Mr. Tushar Sahu	Dy. Manager	
4	Operation Dept.	Mr. Ramesh Verma	Asst. Manager	
5	Maintenance Dept.	Mr. Nihar Ranjan	Asst. Manager	
6	Mechanical Dept.	Mr. Jai Prakash kashyap	Asst. Engineer	
7	Electrical Dept.	Mr. Ashok Kashyap	Asst. Manager	
8	Personal Administration Dept.	Mr. Hemant Patel	Asst. HR	
9	Quality Assurance Dept.	Mr. K. P. Tiwari	Manager	
10	Security Services Dept.	Mr. Jagdish Mishra	Security Manager	
11	Supervisor Furnace Section	Mr. Dinesh Sahu	Supervisor	

2) DETAIL OF MOCK DRILL/REHARSAL SCHEDULE

Date & Time	**20/12/2024 04:30 PM.**
Site / Location	POWER DIVISION
Situation	The Dummy Fire Created on Dumped Waste Cotton / Coal.
Incident Controller	Mr. Pramod Chandrakar

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9) ACTION OF COMMITTEE MEMBERS/WORKERS

Response of Workmen's	**As Soon Fire Near Power Section Seen By Mr. Ram Singh (worker) . He Shout FIRE – FIRE, and immediately Inform to the head Section Following acting Taken by them:-** **1. By Mobile Information Passed of Emergency (Fire) to Working In Company.** **2. He Told to assistant to Evacuated the section and most of Worker Evacuated Within 2-3 minutes, only few worker are there for help.** **3. Section head immediately rushed the place of Fire by Taking Fire Extinguisher Placed (near Refractory Store).** **4. With the help of Fire Extinguisher they Have Extinguished the fire within 5 Minutes.**
Response of Equipments	**Satisfactory**
Response Time (In Hrs.)	**2 Minutes**
Total Control on Emergency Situation	**Within 10 Minutes**
Deficiency (if any)	**NIL**
Corrective Action **Procedure Modification** **Equipments Replace** **Others**	 **N.A** **N.A** **N.A**
Preventive Action	**Periodical Fire Fighting Training and Awareness Program Should be Organize From Time to Time.**
Remarks Recommendations	**NIL**

Signature of
Incident Controller

Mr. Pramod Chandrakar

ANNEXURE - 5 MATERIAL SAFETY DATA SHEET OF HAZARDOUS MATERIAL

ANX5.1 MSDS OF DIESEL OIL (LDO)

Trade Name	: Light Diesel Oil (LDO)
Hazardous Ingredient	: No any (only combustible ingredient are there.)
Health	: Normally no health hazard.
Fire	: Moderate Fire Hazard flammable but not much volatile.
Reactivity	: Normally Stable. No reaction with water.

1. Physical Properties :-

Characteristic Nature	: It is in liquid form.
Appearance, Colour & odour	: It is colourless Liquid with perceptible odour.
Flash Point	: 38 ^{0}C (Auto ignition temperature)
Boiling point at 760mmHgG	: 150 ^{0}C -260 ^{0}C
Specific Gravity	: 0.8379 at 20 ^{0}C
Miscibility	: Not Soluble in Water

2. Fire and Explosion Hazard

Flammable limits in air	: Upper 6.7 and Lower 1.0 by Vol.
Extinguishing Media	: Foam/DCP/Halon
Special Fire Fighting	: Containers keep cool by spraying with water if exposed to fire, do not use water jet. Extinguish fire by foam, DCPor Halon,never by water spray.
Unusual Fire and Explosion	: Conform explosive mixture with air particularly in empty un-cleaned receptacles.

3. Health Hazard Information

Routes of exposure

Inhalation	: Normally not existing at normal Temp.
Skin	: Possible
Skin absorption	: Possible
Eye Contact	: Possible
Ingestion	: NA
Effects of overexposure	: Remove to fresh air and remove soaked or acute overexposure clothing. Wash the affected part.

Emergency and First Aid Procedure

Eyes	: Wash with plenty of water
Skin	: Wash with plenty of water

4. Reactivity Data

Conditions contributing to instability	: Nil
Incompatibility	: Nil
Hazardous decomposition products	: Nil
Conditions contributing to hazardous Polymerization	: Nil

5. Leakage/Spillage

Steps to be taken if material is released or spilled

* No naked light, no smoking
* Mark road and warn other road users.
* Keep public away from danger area
* Use explosion proof electrical equipment.
* Keep unwind.
* Shut off leaks without risk.
* Contain leaking liquid with sand or earth.

ANX5.2 MSDS OF SULPHURIC ACID

Chemical Name	: SULPHURIC ACID
Chemical formula	: H2SO4

1. Physical properties :-

Characteristic Nature	: It is in fuming liquid form.
Colour & odour	: It is colourless Oily Liquid with penetrating odour.
Flash Point	: 72.8 ^{0}C
Boiling point	: 315-338 ^{0}C
Specific Gravity	: 1.84 at 20 ^{0}C
Miscibility	: Soluble in Water

2. Toxicity : Highly corrosive and moderate toxic.

TLV : 05 ppm (7mg/CuM.)

3. Fire Hazard

This is very powerful acidic oxidizer which can ignite or even explode on contact with Many materials e.g. some metals acid, vinyl acetate and great number of organic substance.

4 Disaster Hazard

1. Dangerous, when heated emits highly toxic fumes of SO2 & SO3 on decomposition.
2. It will react with water or steam to produce toxic and corrosive fumes.
3. It can react with oxidizer or reducing material.

5. Leakage/Spillage

In case of any heavey leakages from tank, it should be neutralize with Alkalies like Ammonium Hydroxide, Sodium Hydroxide and washed with mop quantities of water.
While taking action in above cases the person shall wear self contained breathing apparatus.

6. Treatment of antidotes

Delay in case of skin contact due to leakage/spillage.
May result in serious injuries

1. Skin contact
a) Remove contaminated clothes and prolong application of moving water. To use deluge type of shower. Not to neutralize until all acid is washed out minutes.
b) In case of servers and extensive burns, keep patient on back and keep him warm.
2. Eyes contact, the eyes should be washed by copious quantities of water for 15 minutes.
3. Injection (taken internally) do not attempt to induce vomiting or to give any thing of the patient who has swallowed strong HCL solution.
4. The affected portion of skin shall be flush with plenty of water and then a paste of 1vol. Ammonia 25% + 1vol. Of turpentine + 10vol. Of Alcohal 90% shall be apply on the skin.

ANX5. 3 MSDS OF HYDRAZINE HYDRATE

Chemical Name	: HYDRAZINE HYDRATE
Chemical formula	: N2H4H2O
Trade Name	: HYDRAZINE HYDRATE
Hazardous Ingredient	: Only one ingredient are there.)
Health	: Oral-60mg/Kg, Interpritoneol-59 mg/Kg, Skin-190mg/Kg
Fire	: Moderate Fire Hazard flammable but not much volatile.
Reactivity	: Normally Stable. React with water.

1. Physical Properties :-

Characteristic Nature	: It is in liquid form.
Appearance, Colour & odour	: It is colourless Liquid with penetrating odour.
Flash Point	: 72.8 ^{0}C
Auto ignitor	: N.A.
UEL	: N.A.
LEL	: N.A. (Hazardous Combustion product, Emits Highly Fumes of Oxides)
Boiling point at 760mmHgG	: 118 ^{0}C -119 ^{0}C at 1 atm.
Specific Gravity	: 1.038 at 20 ^{0}C at 1atm .
Miscibility	: Soluble in Water

2. Fire and Explosion Hazard

Flammable limits in air	: No.
Extinguishing Media	: DCP/CO2 Flooding the area with water to prevent reignition

Special Fire Fighting Procedure	: Containers keep cool by spraying with water if massive fire container exposed to fire, to keep it cool. In case of massive fire do Fire Fighting by DCP/CO2 from a safe distance
Explosion Data	: Sensitivity to Chemical Impact.
Unusual Fire and Explosion	: Sensitivity to static Discharge.

3. Health Hazard Information

Routes of exposure	
Inhalation	: High.
Skin	: High
Skin absorption	: Higher
Eye Contact	: High
Ingestion	: High
Effects of overexposure	: High (It is strong Skin & Mucus Membrane Irritant. It is absorbed from the lungs, Gestro, Intestinal track. Remove overexposure clothing. Wash the affected part.

4. Emergency and First Aid Procedure

Eyes & skin : Wash with plenty of water affected part of body. Do not try to neutralize with other chemicals & do not use Ointment.

Inhalation : In case of Inhalation lay the patient down in a comfortable & warm condition and give oxygen at low pressure as deemed fit.

5. Reactivity Data

Conditions contributing to instability	: Yes
Incompatibility	: Yes
Hazardous decomposition products	: ammonia, Nitrogen, Hydrogen.
Conditions contributing to hazardous	: Hydrogen peroxide, Nitric acid, Polymerization & other Oxidant. Reacts in Oxidizing condition. It is Strong Reducing Agent.

6. Leakage/Spillage

In case of Spills , flush with large amount of water and neutralize with sulphuric acid.

7. Waste Disposal

The Waste will be diluted to at least 40% & neutralize with dilute sulphuric acid . Before Disposal flush to sewar with excess water.

8. Handling/ Storing precautions

Avoid Direct Contact with skin.

Hydrazine Hydrate should be stored in polythene car buoys orin MS Drum PP lined.

No any flammable or inorganic chemical , oxidizing material has been stored near hydrazine hydrate. More over it is stored away from heat or fire sources.

The persons handling the chemical are trained to avoid direct contact with vapours.

ANX5.4 MSDS OF T. G. OIL/TRANSFORMER OIL

Trade Name : Turbine 4-6

Hazardous Ingredient : No any (only combustible ingredient are there.)

Health : Normally no health hazard.
Fire : Moderate Fire Hazard flammable but not much volatile.
Reactivity : Normally Stable. No reaction with water.

1. Physical properties :-

Characteristic Nature : It is in thick liquid form.

Appearance, Colour & odour : It is black colour Liquid with non perceptible odour.
Flash Point : 84 ^{0}C (Auto ignition temperature)
Boiling point at 760mmHgG : 765 ^{0}C 890 ^{0}C
Specific Gravity : 0.995 at 20 ^{0}C
Miscibility : Not Soluble in Water

3. Fire and Explosion Hazard

Flammable limits in air : Upper 14.7 and Lower 5.5 by Vol.
Extinguishing Media : Foam/DCP/Halon
Special Fire Fighting : Containers keep cool by spraying with water if exposed to fire, do not use water jet. Extinguish fire by foam, DCP or Halon, never by water spray.
Unusal Fire and Explosion: Conform explosive mixture with air particularly in empty uncleaned receptacles.

4. Health Hazard Information

Routes of exposure
Inhalation : Normally irritating at normal Temp.
Skin : Possible
Skin absorption : Possible
Eye Contact : Possible
Ingestion : Possible
Effects of overexposure : Remove to fresh air and remove soaked or acute overexposure clothing. Wash the affected part.

Emergency and First Aid Procedure

Eyes : Wash with plenty of water

Skin : Wash with plenty of water

4. Reactivity Data

Conditions contributing to instability : Nil
Incompatibility : Nil
Hazardous decomposition products : Nil
Conditions contributing to hazardous : Nil
Polymerization

5. Leakage/Spillage

Steps to be taken if material is released or spilled

* No naked light, no smoking
* Mark road and warn other road users.
* Keep public away from danger area
* Use explosion proof electrical equipment.
* Keep unwind.
* Shut off leaks without risk.
* Contain leaking liquid with sand or earth.

6. Disposal of Tank Waist

Tanks are generally be cleaned after the period of 1 or 2 Year the waste in the form of mud, This waste will carry in the remote place and if possible burnt and be merged deep in earth.

ANX5.5 MATERIAL SAFETY DATA SHEET (MSDS) OF LPG

Technical Name	:	Liquefied Petroleum Gas
Chemical composition	:	Mixture of Butane & Propane
Odour	:	LPG is odourless. Odourant Ethyle mercaptan is added to LPG for Distinctive smell to realize its presence.
Colour	:	Colourless
Vaporization	:	Liquid LPG expands 250 to 270 times it volume during Vaporisation.
Calorific Value	:	11,850 KCal/Kg
Combustion	:	2% - 9.5% by volume of LPG vapour in air produces a combustible mixture. {2.2% to 9.5% for Propane and 1.8% to 8.4% for Butane}
Storage	:	Normally stored in liquid form under moderate pressure in pressure vessel at normal temperature.
Volumetric Expansion	:	Volumetric expansion is 0.002 to 0.0033 (Liquid LPG expands 100 times to that of steel).
Auto-Ignition Temp.	:	441 - 481 degrees centigrade.

Toxicity	:	LPG is not-toxic in nature. Excessive inhaling may cause dizziness. LPG liquid in contact with human body can cause serious cold burns which are similar to heat burns.
Stability with water	:	Insoluble with water.
Flash Point	:	-76 to -156^0 F
Vapour Pressure	:	1313.56 mm at -58 deg. F
Vapour Density (Air=1)	:	1.5
Sp.Gravity(Liquid LPG)	:	0.51 to 0.58 deg. F
Molecular Weight	:	44
TLV TWA	:	1000 ppm
TLV STEL	:	1250 ppm

1 HAZARDS OF LPG :

It is essential to recognize various hazards in the operation of LPG system so that effective remedial measure can be planned out.

2 FIRE HAZARDS :

If the LPG concentration in air falls in the range of 2% to 9.5% by volume, an explosion or fire may occur in the presence of source of ignition. Explosion is accompanied by tremendous release of energy which may lead to the bursting of storage vessels.

3 SOURCE OF HEAT AND OPEN FLAME :

Any source of fire near the area containing LPG vapour constitutes a likely danger like
1) Matchsticks 2) Cigarettes 3) Blow-pipes etc.

4 AUTO-IGNITION :

If the temperature of LPG vapour is equal to its Auto-Ignition temperature, the vapour Can catch fire on mixing with oxygen even without the help of a spark or flame.Auto- Ignition temperature of LPG is around 450 deg. C.

5 SPARKS:

Ignition of LPG vapour-air mixture can be produced by a spark which may result in an explosion or fire. For, example rubbing of iron-nails on shoe sole with hard or metallic surface, sparks from loose electrical fittings.

6 STATIC ELECTRIC CHARGES :

Static Electric are produced by friction of two dissimilar materials, and these charges can accumulate to develop a potential difference over two surface. A spark can take place to neutralise the difference which is enough to initiate a fire and explosion. A proper system of ground in grand earthling is essential for earthling such static generation.

7 LIGHTING :

Metalic objects located at heights are more vulnerable to lightings. For example, safety Relief valves fitted on top of Bullet discharging LPG vapour to atmosphere may be a likely target for lighting to hit. A reliable earthing system is provided to avert such disasters**.**

8 HEALTH HAZARDS :

Exposure to LPG can give rise to following health hazards :

9 INHALATION :

If air with hydrocarbon concentration of0.001% is inhaled for minutes, the person feels gidy. If concentration increases to 0.5% and a person inhales such air forabout4minutes, he exhibits symptoms/similar to those of alcoholism.

10 COLD BURN :

LPG in liquid form coming in contact with body immediately vaporises. For vaporisation, the required latent heat will be absorbed directly from the skin and flesh, causing freezing effect which is referred to as COLD BURN.

ANX5.6 MSDS OF OXYGEN GAS (O2)

1. CHEMICAL IDENTITY

CHEMICAL NAME `	OXYGEN Chemical classification supporter of combustion
Synonyms	N.A.
Trade Name	OXYGEN
FORMULA	O_2
Hazardous ingredients	N.A. Oxygen in itself creates no hazards. It is a colorless, odorless, tasteless gas. It is non-flammable and given green level. But fire hazard is dangerous because it helps in combustion of other substances. The other parameters are: -
Specific gravity	1.10535 referred to air
Boiling point	183^{o}C
Solidifies at	-227^{o}C

PHYSICAL & CHEMICAL DATA.

Boilding Range Point	182.96 ºC
Physical status	GAESEOUS
Melting/Freezing pointº C	-218.65º C
Vapour Pressure	N.A. Odour
Odour	Odourless.
Vapour Density	1.1053
Solubility in water	35º C : 0.489 others. (Air-1)
Specific Gravity (for liquid)	1.148
Fire & Explosion Hazard Data	
Flammability	YES/NO LED% Flash point º C N.A.Non flammable.
TGD Flammability	UEL % Flash Point ºC N.A.
Explosion Sensitivity to Impact	N.A.
Explosion sensitivity to State Electricity.	
Hazardous Polymerisation	N.A.
Combustion Liquid:	**No.**
Explosive material	**No**
Corrosive material	**No**
Flammable material	**No**
Organic peroxide	**No**
Reactivity Data:	
Chemical Stability	**Chemically stable – But reacts into most oxides**
Reactivity	**Reacts with most elements to form oxides.**
Health Hazard Data	**Gaseous form – Non hazardous.**
	Liquid form – Cause burns.
Routes of Entry	Breathing.
Emergency Treatment	N.A.
Permissible Explosive limit	N.A.
Preventive measures	
Gas :	Not to be released in closed spaces.
	Heat sources kept away.
Liquid :	Should not come in direct contact with body.
Personnel protective Equipment	Protective clothing to be used while handling liquid oxygen.
FIRE	N.A. FIRE EXTINGUISHSING Media.
FIRE N.A.	Special Procedures.

Waste Disposal method.

For liquid oxygen – to be allowed to evaporate in specially made vessels.

ANX5.7 MATERIAL SAFETY DATA SHEET (MSDS) OF COAL/PET COKE

1. **Product Description**

Product Name: : Coal, Bituminous
Recommended Use : Science education applications
Synonyms : Washed Coal, Clean Coal, Soft Coal
Chemical Name : Coal, Bituminous

.

1. **Physical properties :-**

Formula: N/A (C + Impurities)
Molecular Weight: N/A
Appearance: Lumps
Odor: Mild
Odor Threshold: No data available
Insoluble **pH:** No data available
available **Melting Point:** 399 C
data available
Boiling Point: No data available
Flash Point: 260 ^{0}C
Flammable Limits in Air: N/A

Vapor Pressure: N/A
Evaporation Rate (BuAc=1): N/A
Vapor Density (Air=1): N/A
Specific Gravity: 1.2
Solubility in Water: Practically
Log Pow (calculated): No data
Autoignition Temperature: No

Decomposition Temperature: No data available
Viscosity: No data available
Percent Volatile by Volume: N/A

2. **Fire and Explosion Hazard**

Extinguishing Media: Use dry chemical, CO2 or appropriate foam.
Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards: Avoid Dusting. May become explosive when dispersed in air.
Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

3. **Health Hazard Information**

Routes of exposure
Inhalation : Normally not existing at normal Temp.
Skin : Possible
Skin absorption : Possible
Eye Contact : Possible
Ingestion : NA
Effects of overexposure : Remove to fresh air and remove soaked or acute overexposure clothing. Wash the affected part.

Emergency and First Aid Procedures

Inhalation:	In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Eyes:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact:	After contact with skin, wash immediately with plenty of water.
Ingestion:	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

4. Reactivity Data

Reactivity:	Not generally reactive under normal conditions.
Chemical Stability:	Stable under normal conditions.
Conditions to Avoid:	Sparks, open flame, other ignition sources, and elevated temperatures.
Incompatible Materials:	Strong oxidizing agents
Hazardous Polymerization:	Will not occur

Section 11 **Toxicity Data**

Routes of Entry Inhalation.
Symptoms (Acute): Respiratory disorders

5. Leakage/Spillage

Steps to be taken if material is released or spilled

Steps to Take in Case Material Is Released or Spilled:
Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Avoid the generation of dusts during clean-up. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Avoid creating dusts. Eliminate ignition sources. If a vacuum is used, ensure that the material is wetted or otherwise treated so an explosive dust atmosphere is not created within the vacuum.

6. Disposal Methods:

Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

ANX5.8 MATERIAL SAFETY DATA SHEET (MSDS) OF MANGANESE (Mn)

1. **Product Description**

Product Name: Manganese
CAS#: 7439-96-5
Chemical Name: Manganese
Chemical Formula: Mn
Toxicological Data on Ingredients: Manganese: ORAL (LD50): Acute: 9000 mg/kg [Rat].

2. Physical and Chemical Properties

Physical state and appearance: Solid.
Odor: Odorless.
Taste: Not available.
Molecular Weight: 54.94 g/mole
Color: Grayish white.
pH (1% soln/water): Not applicable.
Boiling Point: 2095°C (3803°F)
Melting Point: 1244°C (2271.2°F)
Critical Temperature: Not available.
Specific Gravity: 7.44 (Water = 1)
Vapor Pressure: Not applicable.
Vapor Density: Not available.
Volatility: Not available.
Solubility: Insoluble in cold water, hot water.

3. Exposure Limits:
TWA: 1 (mg/m3) from ACGIH (TLV) [United States] TWA: 5 (mg/m3) [Canada]
TWA: 5 (mg/m3) from OSHA (PEL)
STEL: 3 (mg/m3) from NIOSH [United States]

4. Fire and Explosion Data

Flammability of the Product: Non-flammable.
Auto-Ignition Temperature: Not applicable.
Flash Points: Not applicable.
Flammable Limits: Not applicable.
Products of Combustion: Not available.
Fire Hazards in Presence of Various Substances: Not applicable.
Explosion Hazards in Presence of Various Substances: Not applicable.
Risks of explosion of the product in presence of mechanical impact: Not available.
Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards:
Moderate fire potential, in the form of dust or powder, when exposed to flame. When manganese if heated in the vapor of phosphorus at a very dull red heat, union occurs with incandescence. Concentrated nitric acid reacts with powdered manganese with incandescence and explosion. Powdered manganese ignites in chlorine.

Special Remarks on Explosion Hazards: Moderate explosion potential, in the form of dust or powder, when exposed to flame.

5. Emergency and First Aid Measures

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin Contact: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

Serious Skin Contact: Not available.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

6. Hazards Identification

Potential Acute Health Effects: Hazardous in case of inhalation.
Slightly hazardous in case of skin contact (irritant), of eye contact (irritant),
of ingestion the substance may be toxic to blood, lungs, brain, central nervous system (CNS).
Repeated or prolonged exposure to the substance can produce target organs damage.

7. Toxicological Information

Routes of Entry: Inhalation. Ingestion.
Toxicity to Animals: Acute oral toxicity (LD50): 9000 mg/kg [Rat].
Chronic Effects on Humans: May cause damage to the following organs: blood, lungs, brain, central nervous system (CNS).
Other Toxic Effects on Humans:
Hazardous in case of inhalation. Slightly hazardous in case of skin contact (irritant), of ingestion.
Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:
Manganese can cross the placenta. May cause cancer (tumorigenic) based on animal data.

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: May cause skin irritaiton Eyes: Dust may cause mechanical irritation.

Inhalation: Dust may cause respiratory tract irritation. May cause "Metal Fume Fever" which may include flu-like symptoms (fever, chills, upset stomach, vomiting, weakness, headache, body aches, muscle pains, dry mouth and throat, coughing, tightness of the chest). May affect behavior/Central Nervous system (change in motor activity, torpor, nervousness, tremor, yawning, mood swings, irritability, restlessness, fatigue, headache, apathy, languor, insomnia than somnolence, hallucinations, delusions, uncontrollable laughter followed by crying, compulsions, aggressivness, weakness in legs, memory loss, decreased libido, impotence, salivation, hearing loss, slow gait,), and respiration (dyspnea, shallow respiration, cyanosis, alveolar inflammation). Ingestion: Repeated or prolonged exposure from ingestion may affect brain (degenerative changes), blood
and metabolism. Ingestion: May cause digestive tract irritation. There is a low gastrointesitnal absorption of manganese. Chronic Potential Health Effects: Inhalation: Repeated or prolonged exposure from inhalation may affect brain (degeneratiave changes), behavior/Central Nervous system with symptoms to acute exposure. May also affect liver (chronic liver disease, jaundice) Ingestion: Repeated or prolonged exposure from ingestion may affect brain, blood and metabolism

8. Accidental Release Measures

Small Spill:
Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements. (as per Factory Act Second Schedule (Section 41F))

Large Spill:
Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV..

9. Handling and Storage

Precautions:
Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, reducing agents.
Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above

10. Exposure Controls/Personal Protection

Engineering Controls:
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection: Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

11. Stability and Reactivity Data

Stability: The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Incompatible materials
Incompatibility with various substances: Reactive with oxidizing agents, reducing agents.
Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity:
Superficially oxidized on exposure to air. Reacts with aqueous solutions of sodium or potassium bicarbonate. Reacts with dilute mineral acids with evolution of hydrogen and formation of divalent manganous salts. Reacts with fluorine and chlorine to produce di or tri fluoride, and di and tri chloride, respectively. In the form of powder, it reduces most metallic oxides on heating. On heating, it reacts directly with carbon, phosphorus, antimony, or arsenic. Also incompatible with hydroxides, cyanides, carbonates.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

12. Disposal Considerations

Waste Disposal:
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

*** V E R I F I C A T I O N ***

This is to certify that, the documents and information incorporated in the 13th Revised Onsite Emergency Plan manual (as on Year 2025) of M/S ALOK FERRO ALLOYS LIMITED (HIRA GROUP OF INDUSTRIES) have been personally verified and digitally signed by me.

The Revised OnSite Emergency Plan manual is submitted herewith to the Director & CIF, Industrial Health & Safety, Govt. of C.G. seeking his kind approval and permission to implement the same at M//S ALOK FERRO ALLOYS LTD., Raipur (C.G.) 493221.

We hereby acknowledge to revise and update the Onsite Emergency Plan manual in the event of any change(s) in the technology, infrastructure, plan process, machinery(s),building (s), storage and manufacturing process and/or deletion or addition made on account of the above. And, shall submit the same to the Director, Industrial Health & Safety, Govt. of C.G. for his approval.

We further undertake that in the event of closure of the factory, the hazardous materials Stored in the factory shall be disposed-off in a safe and sound manner without affecting risk and danger to the human beings and to the environment and, shall intimate the action taken in this regard, to the Directorate of Industrial Health & Safety, Govt. of C.G.)

PRESENTED BY
SHRI AJAY DUBEY

DIRECTOR

\Annexure XXXII: Work Zone Monitoring Report

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

Registered Office: 63/1, Kailash Vihar, Near Income Tax Office, City Center-II, Gwalior-474 011, M.P., India
0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

Report No.: AETRL/ WZ-26122025/01			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date & Time	:	26/12/2025	Sampling Type	:	
Sample Receipt Date	:	30/12/2025	Sample ID	:	WZ-26122025/01
Sampling Location	:	Near Ground Hopper	Sample Description	:	Work Zone
Sample Collected / Submitted by	:	Lab Representative	Protocol used for monitoring	:	NA
Quantity / No. of Sample	:	One	Analysis Started On	:	30/12/2024
Packing / Seal	:	Seal Pack	Analysis Completed On	:	06/01/2025
Environmental Condition during the test			Clear sky		

TEST RESULT

Sl. No.	Parameter	Unit	OSHA Permissible Limit	Results
1	Respirable Dust	mg/m3	5 mg/m3	2.7 mg/m3
2	Total Dust	mg/m3	15 mg/m3	8.3 mg/m3
3	Carbon Monoxide (CO)	ppm	50 ppm	18 ppm
4	Carbo Dioxide (CO_2)	ppm	5000 ppm	1150 ppm

Authorized Signatory

****End of the Report****

Note:

1. This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
2. The sample will be destroyed after 15 days from the date of issue of test certificate unless otherwise specified.
3. Any discrepancy in test result should be reported within 15days.
4. The above Results are related to the tested Sample Only.

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1ZS

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

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0751-3566867, 2232177
Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/ WZ-27122025/02			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date & Time	:	27/12/2025	Sampling Type	:	
Sample Receipt Date	:	30/12/2025	Sample ID	:	WZ-26122025/02
Sampling Location	:	Near screen house	Sample Description	:	Work Zone
Sample Collected / Submitted by	:	Lab Representative	Protocol used for monitoring	:	NA
Quantity / No. of Sample	:	One	Analysis Started On	:	30/12/2024
Packing / Seal	:	Seal Pack	Analysis Completed On	:	06/01/2025
Environmental Condition during the test			Clear sky		

TEST RESULT

Sl. No.	Parameter	Unit	OSHA Permissible Limit	Results
1	Respirable Dust	mg/m3	5 mg/m3	2.9 mg/m3
2	Total Dust	mg/m3	15 mg/m3	9.1 mg/m3
3	Carbon Monoxide (CO)	ppm	50 ppm	16 ppm
4	Carbo Dioxide (CO_2)	ppm	5000 ppm	1120 ppm

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Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

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Web: aetrl.com

TEST REPORT

Report No.: AETRL/ WZ-28122025/03			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date & Time	:	28/12/2025	Sampling Type	:	
Sample Receipt Date	:	30/12/2025	Sample ID	:	WZ-28122025/03
Sampling Location	:	Near Furnace area	Sample Description	:	Work Zone
Sample Collected / Submitted by	:	Lab Representative	Protocol used for monitoring	:	NA
Quantity / No. of Sample	:	One	Analysis Started On	:	30/12/2024
Packing / Seal	:	Seal Pack	Analysis Completed On	:	06/01/2025
Environmental Condition during the test			Clear sky		

TEST RESULT

Sl. No.	Parameter	Unit	OSHA Permissible Limit	Results
1	Respirable Dust	mg/m3	5 mg/m3	2.3 mg/m3
2	Total Dust	mg/m3	15 mg/m3	8.7 mg/m3
3	Carbon Monoxide (CO)	ppm	50 ppm	17 ppm
4	Carbo Dioxide (CO_2)	ppm	5000 ppm	1102 ppm

Authorized Signatory

****End of the Report****

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3. Any discrepancy in test result should be reported within 15days.
4. The above Results are related to the tested Sample Only.

Annexure XXXIII: Stack Monitoring Report

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

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Web: aetrl.com

TEST REPORT

Report No.: AETRL/ S-27122025/01			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date & Time	:	27/12/2025 10.00 am to 10:32 am	Sampling Type	:	Isokinetic
Sample Receipt Date	:	30/12/2025	Sample ID	:	S-27122025/01
Sampling Location	:	Captive Power plant (8MW) Stack_ Connected with ESP	Sample Description	:	Stack Emission Stack height: 73 meter, Fuel – Various Grades Coal/Dolochar
Sample Collected / Submitted by	:	Lab representative	Protocol used for monitoring	:	IS:11255 (part 1,3)
Quantity / No. of Sample	:	1 Thimble	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	06/01/2026
Environmental Condition during the test			Clear sky		

STACK EMISSION MONITOIRNG RESULT

Sr. No.	Parameter	Result	Unit	CPCB Standard	Protocol used for Analysis
1	Ambient Temperature	25.2	°C	-	IS 11255 (Part 03): 2018
2	Stack Temperature	117	°C	-	IS 11255 (Part 03): 2018
3	Velocity	9.2	m/s	-	IS 11255 (Part 03): 2018
4	Volumetric Flow Rate	68745	Nm^3/hr	-	CPCB Guideline
5	Particulate Matter as PM	30.4	mg/Nm^3	50	IS 11255 (Part 01): 2019
6	Sulphur dioxide (SOx)	376	mg/Nm^3	600	IS 11255 (Part 02): 1985
7	Nitrogen Dioxide (NOx)	189	mg/Nm^3	300	IS 11255 (Part 07): 1985
8	Oxygen (O2)	19.2	%	-	By Flue gas Analyser

******End of the Report******

Authorized Signatory

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3. Any discrepancy in test result should be reported within 15days.
4. The above Results are related to the tested Sample Only.

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

Approved: by Occupational Health &Safety Management (ISO45001:2018)
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Web: aetrl.com

TEST REPORT

Report No.: AETRL/ S-27122025/02			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date & Time	:	27/12/2025 12.00 am to 12:21 am	Sampling Type	:	Isokinetic
Sample Receipt Date	:	30/12/2025	Sample ID	:	S-27122025/02
Sampling Location	:	Common Stack for Furnace 2&3 (2x45MVA SAF) connected with Bag filter	Sample Description	:	Stack Emission Stack height: above Factory room 30.5 meters & Below Ground level 32 meters, Stack dia- 1.8 m
Sample Collected / Submitted by	:	Lab representative	Protocol used for monitoring	:	IS:11255 (part 1,3)
Quantity / No. of Sample	:	1 Thimble	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	06/01/2026
Environmental Condition during the test			Clear sky		

STACK EMISSION MONITOIRNG RESULT

Sr. No.	Parameter	Result	Unit	CPCB Standard	Protocol used for Analysis
1	Ambient Temperature	25.8	°C	-	IS 11255 (Part 03): 2018
2	Stack Temperature	76	°C	-	IS 11255 (Part 03): 2018
3	Velocity	12.9	m/s	-	IS 11255 (Part 03): 2018
4	Volumetric Flow Rate	101160	Nm^3/hr	-	CPCB Guideline
5	Particulate Matter as PM	28.8	mg/Nm^3	50	IS 11255 (Part 01): 2019
6	Oxygen (O2)	13.8	%	-	By Flue gas Analyser

Authorized Signatory

******End of the Report******

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3. Any discrepancy in test result should be reported within 15days.
4. The above Results are related to the tested Sample Only.

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

Registered Office: 63/1, Kailash Vihar, Near Income Tax Office, City Center-II, Gwalior-474 011, M.P., India
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Email: aelgwalior@gmail.com,aetrlcenter@gmail.com
Web: aetrl.com

TEST REPORT

Report No.: AETRL/ S-27122025/03			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date & Time	:	27/12/2025 3.00 am to 12:22 am	Sampling Type	:	Isokinetic
Sample Receipt Date	:	30/12/2025	Sample ID	:	S-27122025/02
Sampling Location	:	Furnace-1: Stack connected with Bag filter (1 x4.5 MVA SAF)	Sample Description	:	Stack Emission Stack height: 30.5 meters Stack dia- 1.8 m
Sample Collected / Submitted by	:	Lab representative	Protocol used for monitoring	:	IS:11255 (part 1,3)
Quantity / No. of Sample	:	1 Thimble	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	06/01/2026
Environmental Condition during the test			Clear sky		

STACK EMISSION MONITOIRNG RESULT

Sr. No.	Parameter	Result	Unit	CPCB Standard	Protocol used for Analysis
1	Ambient Temperature	25.6	°C	-	IS 11255 (Part 03): 2018
2	Stack Temperature	74	°C	-	IS 11255 (Part 03): 2018
3	Velocity	13.2	m/s	-	IS 11255 (Part 03): 2018
4	Volumetric Flow Rate	104040	Nm^3/hr	-	CPCB Guideline
5	Particulate Matter as PM	29.2	mg/Nm^3	50	IS 11255 (Part 01): 2019
6	Oxygen (O2)	13.6	%	-	By Flue gas Analyser

Authorized Signatory

******End of the Report******

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Annexure XXXIV: Surface Water Monitoring Report

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

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Web: aetrl.com

TEST REPORT

Report No.: AETRL/ SW-26122025/01			Date:		06/01/2026
Customer Name & Address	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Date of Sample Collection	:	26/12/2025	Sampling Type	:	Grab
Date of Sample Received	:	30/12/2025	Sample ID	:	SW-26122025/01
Sampling Location	:	Near Store CSIDC	Sample Description	:	Surface Water (CSIDC Water)
Sample Collected / Submitted by	:	Lab representative	Protocol used for Sampling	:	APHA 24thEdition
Quantity / No. of Sample	:	5 Litre/1Nos.	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	06/01/2026
Environmental Condition during the test			Clear sky		

Surface Water Analysis Results

S.No.	Name of Test	Method of Test	Test Result	Units	Limits as per IS:2296
1	pH	IS:3025 (Part-11)-2022	8.12	-	8.5
2	Taste	IS:3025 (Part-8)- 2023	Agreeable	-	-
3	Odour	IS:3025 (Part-5)- 2018	Odourless	-	Odour/ Odourless
4	Colour	IS:3025 (Part-4)- 2021	BLQ (< 1.0)	Hazen	10.0 (Max.)
5	Turbidity	IS:3025 (Part-10)- 2023	BLQ (< 1.0)	NTU	1.0 (Max.)
6	Total Dissolved Solids	IS:3025 (Part-16)- 2023	730	mg/L	500.0 (Max.)
7	Calcium (as Ca)	IS:3025 (Part-40)-2024	97.1	mg/L	80.10 (Max.)
8	Free Residual Chlorine	IS 3025 (Part-26)-2021	BLQ (< 0.08)	mg/L	-
9	Chlorides (as Cl-)	IS:3025 (Part-32)-2019	150	mg/L	250.0 (Max.)
10	Magnesium (as Mg)	IS:3025 (Part-46)-2023	27.6	mg/L	24.28 (Max.)
11	Total Alkalinity as $CaCO_3$	IS:3025 (Part-23)-2023	124	mg/L	-
12	Total Hardness (as CaCO3)	IS:3025 (Part-21)-2023	356.1	mg/L	300.0 (Max.)
13	Sulphate (as SO4)	IS:3025 (Part-24/Sec-1) 2022	47.2	mg/L	400.0 (Max.)
14	E. Coliform	IS : 15185:2016	Absent	Per 100 ml	Shall Not detectable in any 100 ml sample
15	Total Coliform	IS : 15185:2016	Absent	Per 100 ml	Shall Not detectable in any 100 ml sample

Remarks:**B**LQ: below limit of quantification

Authorized Signatory

****End of the Report****

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Annexure XXXV: Effluent Monitoring Report

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

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Web: aetrl.com

TEST REPORT

Report No.: AETRL/ WW-27122025/01			Date:		06/01/2026
Customer Name & Address	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Date of Sample Collection	:	27/12/2025	Sampling Type		Grab
Date of Sample Received	:	30/12/2025	Sample ID	:	WW-27122025/01
Sampling Location	:	STP Outlet	Sample Description	:	Waste Water
Sample Collected / Submitted by	:	Lab representative	Protocol used for Sampling	:	APHA 24th Edition
Quantity / No. of Sample	:	2Liter/1Nos.	Analysis Started On	:	30/12/2025
Packing / Seal	:	Temp. Sealed	Analysis Completed On	:	06/01/2026
Type of Container	:	Plastic Container	Environmental Condition	:	Clear sky

Wastewater Analysis Results

S. No.	Name of Test	Method of Test	Test Result	Units	Limits as per Environmental Protection Rule,1986 (Sch-VI)
Chemical Testing					
Waste Water					
1	pH	APHA 24th Edition 4500-H+ B:2023	7.58	-	5.5-9.0
2	Total Suspended Solids (TSS)	APHA 24th Edition 2540-D :2023	12.4	mg/L	100 (Max.)
3	Biochemical Oxygen Demand (BOD) 3 Days at 27°C	IS:3025 (Part-44)-2023	9.0	mg/L	30 (Max.)
4	Chemical Oxygen Demand (COD)	IS:3025(Part-58)-2023	49.4	mg/L	250 (Max.)
5	Oil & Greece	IS:3025(Part-58)-2023	0.4	mg/L	10 (Max.)

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Annexure XXXVI: Slag Monitoring Report

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

Approved: by Occupational Health &Safety Management (ISO45001:2018)
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TEST REPORT

Report No.: AETRL/ TCLP-28122025/02			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date & Time	:	28/12/2025	Sampling Type	:	-
Sample Receipt Date	:	30/12/2025	Sample ID	:	TCLP-28122025/02
Sampling Location	:	TCLP test of Dust (FeSi)	Sample Description	:	Slag
Sample Collected / Submitted by	:	Lab representative	Protocol used for monitoring	:	NA
Quantity / No. of Sample	:	500 gm	Analysis Started On	:	30/12/2025
Packing / Seal	:	Seal Pack	Analysis Completed On	:	06/01/2026
Environmental Condition during the test			Clear sky		

TEST RESULTS (TCLP (TOXICITY CHARACTERISTIC LEACHING PROCEDURE) OF DUST (FeSi))

SR.NO.	PARAMETER	UNIT	METHOD OF TEST	LIMIT SCHEDULE II *[See rule 3(1) (17) (ii)]*	RESULT
1	Manganese as Mn	mg/Kg	USEPA METHOD - 1311	10	1.9
2	Zinc as Zn	mg/Kg	USEPA METHOD - 1311	250	3.6
3	Lead as Pb	mg/Kg	USEPA METHOD - 1311	5.0	0.7
4	Cadmium as Cd	mg/Kg	USEPA METHOD - 1311	1.0	N.D.
5	Chromium as Cr	mg/Kg	USEPA METHOD - 1311	5	0.59
6	Arsenic as As	mg/Kg	USEPA METHOD - 1311	5.0	N.D.
7	Mercury as Hg	mg/Kg	USEPA METHOD - 1311	0.2	N.D.
8	Nickel as Ni	mg/Kg	USEPA METHOD - 1311	20.0	0.14
9	Aluminum as Al	mg/Kg	USEPA METHOD - 1311	-	N.D.

Authorized Signatory

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Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1ZS

Approved: by Occupational Health &Safety Management (ISO45001:2018)
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Web: aetrl.com

TEST REPORT

Report No.: AETRL/ TCLP-28122025/03			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date & Time	:	28/12/2025	Sampling Type	:	-
Sample Receipt Date	:	30/12/2025	Sample ID	:	TCLP-28122025/03
Sampling Location	:	TCLP test of Silica Slag (Solid Waste)	Sample Description	:	Slag
Sample Collected / Submitted by	:	Lab Representative	Protocol used for monitoring	:	NA
Quantity / No. of Sample	:	500mg/1Nos.	Analysis Started On	:	30/12/2025
Packing / Seal	:	Seal Pack	Analysis Completed On	:	06/01/2026
Environmental Condition during the test			Clear sky		

TEST RESULTS (TCLP (Toxicity Characteristic Leaching Procedure) OF SILICA SLAG)

SR.NO.	PARAMETER	UNIT	METHOD OF TEST	LIMIT SCHEDULE II *[See rule 3(1) (17) (ii)]*	RESULT
1	Manganese as Mn	mg/Kg	USEPA METHOD - 1311	10	3.9
2	Zinc as Zn	mg/Kg	USEPA METHOD - 1311	250	8.5
3	Lead as Pb	mg/Kg	USEPA METHOD - 1311	5.0	1.0
4	Cadmium as Cd	mg/Kg	USEPA METHOD - 1311	1.0	N.D.
5	Chromium as Cr	mg/Kg	USEPA METHOD - 1311	5	1.12
6	Arsenic as As	mg/Kg	USEPA METHOD - 1311	5.0	N.D.
7	Mercury as Hg	mg/Kg	USEPA METHOD - 1311	0.2	N.D.
8	Nickel as Ni	mg/Kg	USEPA METHOD - 1311	20.0	0.19
9	Aluminum as Al	mg/Kg	USEPA METHOD - 1311	-	N.D.

TEST REPORT

Authorized Signatory

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Web: aetrl.com

Report No.: AETRL/ TCLP-28122025/04			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date & Time	:	28/12/2025	Sampling Type	:	-
Sample Receipt Date	:	30/12/2025	Sample ID	:	TCLP-28122025/04
Sampling Location	:	TCLP test of Pig Iron (Solid Waste)	Sample Description	:	Slag
Sample Collected / Submitted by	:	Lab Representative	Protocol used for monitoring	:	NA
Quantity / No. of Sample	:	500mg/1Nos.	Analysis Started On	:	30/12/2025
Packing / Seal	:	Seal Pack	Analysis Completed On	:	06/01/2026
Environmental Condition during the test			Clear sky		

TEST RESULTS (TCLP (Toxicity Characteristic Leaching Procedure) OF PIG IRON SLAG)

SR.NO.	PARAMETER	UNIT	METHOD OF TEST	LIMIT SCHEDULE II *[See rule 3(1) (17) (ii)]*	RESULT
1	Manganese as Mn	mg/Kg	USEPA METHOD - 1311	10	2.8
2	Zinc as Zn	mg/Kg	USEPA METHOD - 1311	250	9.1
3	Lead as Pb	mg/Kg	USEPA METHOD - 1311	5.0	0.9
4	Cadmium as Cd	mg/Kg	USEPA METHOD - 1311	1.0	N.D.
5	Chromium as Cr	mg/Kg	USEPA METHOD - 1311	5	1.13
6	Arsenic as As	mg/Kg	USEPA METHOD - 1311	5.0	N.D.
7	Mercury as Hg	mg/Kg	USEPA METHOD - 1311	0.2	N.D.
8	Nickel as Ni	mg/Kg	USEPA METHOD - 1311	20.0	0.16
9	Aluminum as Al	mg/Kg	USEPA METHOD - 1311	-	N.D.

TEST REPORT

Authorized Signatory

****End of the Report****

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Annexure XXXVII: Power Plant Silo Area Monitoring Report

Advanced Environmental Testing And Research Lab P. Ltd.

CIN: U73100MP2002PTC015352 GSTIN: 23AAECA9188L1Z8

Approved: by Occupational Health &Safety Management (ISO45001:2018)
Approved: by National Accreditation Board for Testing and Calibration Laboratories

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Web: aetrl.com

TEST REPORT

Report No.: AETRL/ ASH-27122025/01			Date:		06/01/2026
Name & Address of Customer	:	M/s Alok Ferro Alloys Limited Plot No. 458/1, 459, Urla Industrial Area, District – Raipur (C.G.) Pin-492003			
Sample Collection Date & Time	:	27/12/2025	Sampling Type	:	
Sample Receipt Date	:	30/12/2025	Sample ID	:	ASH-28122025/01
Sampling Location	:	Power plant Silo area	Sample Description	:	Ash
Sample Collected / Submitted by	:	Lab Representative	Protocol used for monitoring	:	NA
Quantity / No. of Sample	:	One	Analysis Started On	:	30/12/2024
Packing / Seal	:	Seal Pack	Analysis Completed On	:	06/01/2025
Environmental Condition during the test			Clear sky		

TEST RESULT

Sl. No.	Parameter	Result	Unit
1	Moisture Content (Oven Dry Basis)	1.70	% By Mass
2	Loss on Ignition	0.46	% By Mass
3	Total Silica Content (SiO2)	28.3	% By Mass
4	Iron Oxide (Fe2O3)	2.42	% By Mass
5	Aluminum Oxide (Al2O3)	12.2	% By Mass
6	Calcium Oxide (CaO)	7.28	% By Mass
7	Magnesium Oxide (MgO)	1.68	% By Mass
8	Sodium Oxide (Na2O)	0.60	% By Mass
9	Potassium Oxide (K2O)	1.38	% By Mass
10	Phosphate (P2O5)	0.34	% By Mass
11	Titanium Dioxide (TiO2)	0.45	% By Mass
12	Lead (Pb)	8.10	mg/kg
13	Total Chromium (Cr)	BDL	mg/kg
14	Mercury (Hg)	BDL	mg/kg
15	Arsenic (As)	BDL	mg/kg

Authorized Signatory

****End of the Report****

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Annexure XXXVIII: Sample Heath Records

3/10/2025
OK

Form 21
[Prescribed under Rule (19)]
Health Register

(In respect of persons employed in occupations declared to be dangerous operationsunder Section 87)

Name of Worker……JAYESH CHANDRAKAR .....Age/ Sex…24Y/M……
Name of Compan.....ALOK FERROW ALLOYS LTD.....Employee Code…. …2162……
Nature of occupatioN……..ELECTRICAL.....Date……26/5/25… Annexure

PRE-EMPLOYMENT & PERIODIC MEDICAL EXAMINATION

(1) GENERAL EXAMINATION:

Height 176 cm, Weight 89kg BMI… 28.7 Chest
Inspiration..101….cm, Expiration 98 cm
Throat...NORMAL.... Tongue……MOIST…Tonsils…N/A……
Teeth ..NORMAL..... Gums……NORMAL……
Thyroid……NORMAL……
Lymph nodes……NORMAL…… ……
Additional finding.....N/A.....

(2) CARDIO-VASCULAR SYSTEM:

Pulse 74 mt. Regular/Irregular Peripheral Pulse-felt/not felt
BP.130/82……. min Hg Heart Sound: NORMAL.....
Murmur, If any...NO..... Additional finding (s), if any .....NO.....

(3) RESPIRATORY SYSTEM:

Shape of Chest: .....**NORMAL**.... Tubular…… Chest movements: …. **Symmetrical**
…… Trachea..... **Centrally**…… Breath sound **Vesicular**

(4) GASTRO-INTESTINAL SYSTEM:

Liver.....NP…… Spleen.....NP……
Any abdominal lumps: NO

(5) EXAMINATION OF EYES:

External Exam -NORMAL... Squint: ..... NO.....
Nystagmus: …… NO .....Fundus L/R
Night Blindness.....NO……
Colour vision- Normal
Individual colour identification- Normal

Distance vision (without glasses) Right..6/24.... Left
…6/24…… (with glasses) Right……. Left ……

Near-vision (without glasses) Right…N/6……
Left…N/6…… (with glasses) Right … ….. Left……

(6) EXAMINATION OF EAR NOSE & THROAT:

External Examination: .....**NAD**……

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(7) **GENITO URINARY SYSTEM:**

Hernia - NO…… Hydrocele- NO Varicocele - NO
Cryptorchidism-NO Phimosis.....NO Varicose veins- NO
Signs of STD.....NO ……

Other Examinations for Females:
Menarche…… yr. G. Para……Menstrual irregularity..... if any

INVESTIGATIONS
(8) **Lab Investigations:**

Haemogram
Blood Group.....O+..... Rh factor.....POSITVE..... Hb 11.4 gm%
RBC .....5.89.....Platelet Count.....183
TLC.....7.36..... DLC: -N-35-9.4-50.4.E-3.4.M-0.0.B-1.3

Renal profile
Blood Urea: …24… S. Creatinine:0.64

Hepatic profile - S G O T…24. S G P T …28. Alkaline Phosphat 71 S. Bilirubin 0.56

Lipid Profile:
Serum Cholesterol .....142.....Triglycerides.....110.....HDL....49.....LDL.....71...

Metabolic
Blood Sugar.....81.....Blood Sugar PP 109.S. Uric Acid.4.7

Urine: Albumin....NIL.....**Sugar** ....NIL.....**Microscopy**.....
Stool: .....

(10) **Other Investigation**

11) **Pulmonary Function Test**

	FCV	FEV 1	FEV 1/ FVC
PREDICATED	4.59	5.17	88.72%
MEASURED	4.59	4.38	104.75%
% OF PREDICATED	100.00	82.89	120.64%

12) **Audiometry examination**

PTA	**Lt. Ear -16dB**	**Rt. Ear-18 dB**
Remark	**NORMAL**	

PTA of both ears at frequency ..... Cycles/sec

13. Details of Other specific medical examination carried out as mentioned in the respective schedules of 107 of C.G. Factory rules 1962-

For, Alok Ferro Alloys Ltd.
Factory Medical Officer
Dr. Raju Kumar Manhare
(MBBS & AFIH)
Reg. No. : C.G.M.C. 7111/2017

Signature (with date) of Factory Medical Officer

Signature (with date) Certifying surgeon

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Case number:

Name:MR JAYESH CHANDRAKAR

Gender:Male Age:24

Height:176 cm Weight:89 kg

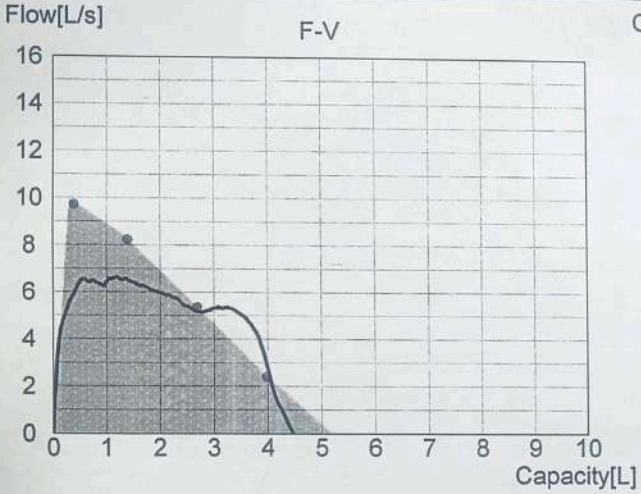
Smoke:No BDT:No

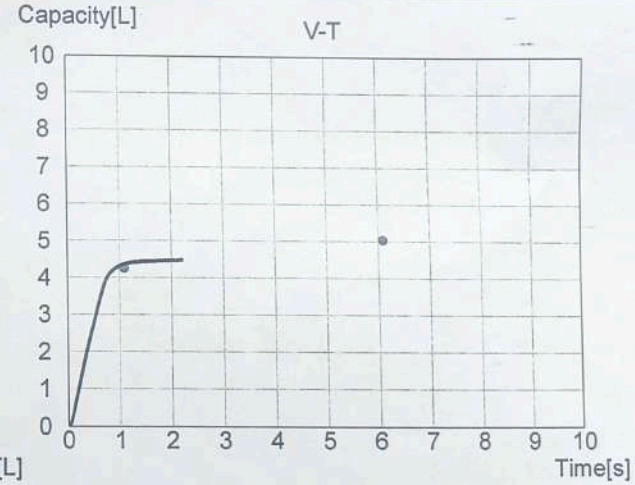
Equation:ECSC Phone:

Test date:2025-05-26 15:31:37

Medical history:

Parameter	Unit	MEAS	PRED	PRED%	LLN	BDT diff	BDT rate
FVC	L	4.59	5.17	88.72%	4.14	-	-
FEV1	L	4.59	4.38	104.75%	3.51	-	-
FEV1/FVC	%	100.00	82.89	120.64%	70.92	-	-
PEF	L/s	7.16	9.92	72.15%	7.89	-	-
FEF2575	L/s	5.92	5.08	116.48%	3.33	-	-
FEF25	L/s	6.76	8.44	80.06%	5.60	-	-
FEF50	L/s	5.91	5.58	105.98%	3.37	-	-
FEF75	L/s	5.43	2.63	206.50%	1.32	-	-
EV	ml	115.00(2.51%FVC)	-	-	-	-	-
FET	s	2.23	6.00	37.17%	-	-	-
EOTV	ml	76.00	-	-	-	-	-
PEFT	ms	229.00	-	-	-	-	-





Test result: Spirometry all the parameter are normal

Dr Kambley

DR. KAMBLEY RAMU WATUJI
REG NO-MC-7823/2018
MBBS, MD
DEPARTMENT-CHEST & PULMONARY

Operator: Physician:

Reporting date: 2025-05-23

Device ID: PULMO022489

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

Bhansoj Road, Off. NH-6, Gram-Godhi, Raipur (C.G.)
Tel.: 91-0771-3053060-87, Fax : 91-0771-3053088-89, www.rimsindia.ac.in
Department of ENT

Health For All

AUDIOLOGICAL EVALUATION

OPD No. ..... Date 26/05/25 Audio No. .....

Name Mr. Rajesh Ghumdaokar Age / Sex 24 / M

Address ..... Ph. No. 7049388901

Tested by ..... Audiometer Used ..... Per/Post Treatment .....

Complaint :-

PURE TONE AUDIOGRAM

KEY OF SYMBOLS

Right	Air Conditions	Left
	Unmasked Three Hold Masked Three Should	
No Responce		
	Unmasked Three Hold Masked Three Should	
Bone Conducts		
	Unmasked Three Hold Masked Three Should	
No Responce		
	Unmasked Three Hold Masked Three Should	
Sound Field		
Response	S	
No Response	S	
Audio Metric		

TEST / EAR	RINNE T.F.T.	WEBER T.F.T.	AUDIOMETRIC WEBER		
			500	1000	2000
RT.					
LT.					

SPEECH AUDIOMETRY

	PTA (db HL)	SRT (db HL)	SDT (db HL)	SDS %	MCL	UCL
RIGHT EAR	18dB					
LEFT EAR	16dB					

TEST CONDITION

PROVISTIONAL DIAGNOSIS :

Right Ear :- Normal hearing sensitivity

Left Ear :- Normal hearing sensitivity

Recommendation :-

Dr Nitinwre
DR. NITINWRE ASHOK ZADBAJI
REG NO-54603
MBBS ENT
DEPARTMENT - ENT

AUDIOLOGIST

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

24 Hour Helpline, Health For All 0771 – 3268844,
Bhansoj Road, Off NH -6, Raipur

PATIENT NAME	JAYESH CHANDRAKAR	AGE/SEX	24Y/MALE
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD	CAMP	SAMPLE RECEIVING DATE	26/05/2025
SPECIMEN	BLOOD	REPORT RELEASING DATE	26/05/2025

HAEMATOLOGY REPORT

TEST NAME	OBSERVED VALUE	NORMAL VALUE
BLOOD GROUP & RH	"O" POSITIVE	(Slides Method)

CHECKED BY

ASSITANT PROFESSOR

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

Teaching Hospital and Medical College

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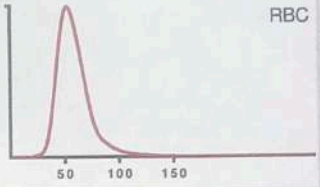
Results

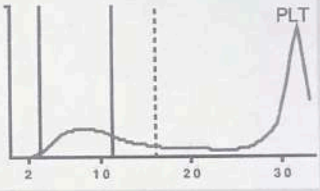
Run Date	26/05/2025 11:44:56 PM	**Operator**	ABX
Last Name		**Sample ID**	AUTO_SID0052
First Name	JAYESH CHANDRAKAR	**Department**	
Gender	Male **Age** 24 Y	**Physician**	
Patient ID	AUTO_PID07107	**Type**	Man
Date of birth			
Sample comments			

				Range
RBC	5.89	*	$10^6/\mu L$	4.20 - 6.00
HGB	11.4	l	g/dL	13.0 - 17.0
HCT	36.9	l*	%	39.0 - 52.0
MCV	62.6	L*	μm^3	76.0 - 100.0
MCH	19.4	L	pg	26.0 - 34.0
MCHC	31.0	L	g/dL	32.0 - 35.0
RDW-CV	17.3	H	%	11.0 - 16.0
RDW-SD	38.6		μm^3	37.0 - 49.0



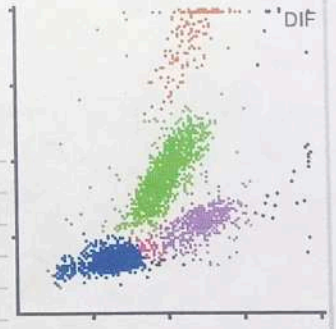
Recommended actions
Slide review
Alarms
PLT
RBC PLT Interference
Susp. Pathologies
Microcytosis
Poikilocytosis

				Range
PLT	183	*	$10^3/\mu L$	150 - 400
PCT	0.16	*	%	0.15 - 0.40
MPV	9.0	*	μm^3	8.0 - 11.0
PDW	15.8	*	μm^3	11.0 - 22.0
P-LCC	48	*	$10^3/\mu L$	44 - 140
P-LCR	26.3	*	%	18.0 - 50.0



				Range
WBC	7.36		$10^3/\mu L$	3.50 - 10.00

	#		Range	%		Range
NEU	2.63		1.60 - 7.00	35.9	l	40.0 - 73.0
LYM	3.69	h	1.00 - 3.00	50.4	h	15.0 - 45.0
MON	0.66		0.20 - 0.80	9.0		4.0 - 12.0
EOS	0.25		0.00 - 0.50	3.4		0.5 - 7.0
BAS	0.09		0.00 - 0.15	1.3		0.0 - 2.0
LIC	0.04		0.00 - 0.10	0.6		0.0 - 1.0



Slide Review

Neutrophil	Myeloblast	Anisocytosis
Lymphocyte	Promyelocyte	Hypochromia
Monocyte	Myelocyte	Polychromasia
Eosinophil	Metamyelocyte	Poikilocytosis
Basophil	Blast	Microcytosis
Atypical Lymphocyte	Target Cell	Macrocytosis
Other	Sickle Cell	Platelet Clumps

Reviewed on _____ by _____ Signature :

RAIPUR INSTITUTE OF MEDICAL SCIENCES ★ RIMS

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

Bhansoj Road Off NH -6, Raipur 0771 - 3053060

24 Hour Helpline

PATIENT NAME	JAYESH CHANDRAKAR	AGE/SEX	24Y/MALE
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD		SAMPLE RECEIVING DATE	26-05-2025
SPECIMEN	SERUM	REPORT RELEASING DATE	26-05-2025

BIOCHEMISTRY REPORT

LIVER FUNCTION TEST

Test Name	Observed Value	Reference Range
Bilirubin Total	0.56	Upto 1.2 mg/dl
Bilirubin Direct	0.22	Upto 0.4 mg/dL
Bilirubin Indirect	0.34	0.2-0.8 mg/dL
S.G.O.T. (AST)	24	M:Upto 35 & F:Upto 31 IU/L
S.G.P.T. (ALT)	28	M:Upto 45 & F:Upto 34 IU/L
Alkaline Phosphatase	71	53-128 IU/L
S. LDH		2-12yrs: 180-360 & 12-60 yrs: 125-220 IU/L

SERUM PROTEINS

Total Protein		6.0-8.0 g/dL
Serum Albumin		3.5-5.5 g/dL
Serum Globulin		2.5-3.5.g/dL
A:G Ratio		1.2-1.5:1

RENAL FUNCTION TEST

B.Urea	24	15-40 mg/dL
S.Creatinine	0.64	F: 0.6-1.2 & M: 0.7-1.4 mg/dL
Uric Acid	4.7	F: 2.6-6.0 & M: 3.5-7.2 mg/dL

Calcium		9.0-11.0 mg/dL
Phosphorus		2.5-4.5 mg/dL
Magnesium		1.8-2.2 mg/dl

PANCREATIC FUNCTION TEST

S. Lipase		Upto 60 U/L
S. Amylase		Upto 80 U/L

BLOOD GLUCOSE

Blood Glucose, Random	81	70-140 mg/dL
Blood Glucose, Fasting		70-100 mg/dL
Blood Glucose, Post-Prandial		100-140 mg/dL

SERUM ELECTROLYTES

S. Sodium (Na+)		135-145 mmol/L
S. Potassium (K+)		3.5-5.0 mmol/L
S. Ca++		1.3-1.5 mmol/L
Iron		ug/dl

Kindly correlate clinically.....

Technician
(Reports Checked By)

Consultant
Clinical biochemistry laboratory

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

24 Hour Helpline, Health For All 0771 – 3268844,

PATIENT NAME	JAISH CHANDRAKAR	AGE/SEX	24/MALE
		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD	CAMP	SAMPLE RECEIVING DATE	26-05-2025
SPECIMEN	URINE	REPORT RELEASING DATE	27-05-2025

PHYSICAL EXAMINATION

VOLUME	:	20 ML
COLOUR	:	PALE YELLOW
APPEARANCE	:	CLEAR

CHEMICAL EXAMINATION

ALBUMIN	:	NIL
SUGAR	:	NIL

MICROSCOPIC EXAMINATION

PUS CELLS	:	2-3/HPF
EPITHELIAL CELL	:	1-2/HPF
CRYSTAL	:	ABSENT
BACTERIA		ABSENT
CAST	:	ABSENT
OTHERS	:	ABSENT

RAIPUR INSTITUTE OF MEDICAL SCIENCES

CHECKED BY

ASSITANT PROFESSOR

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Teaching Hospital and Medical College

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DEPARTMENT OF BIOCHEMISTRY

MR PMPRAKASH SAHU	MR JAYESH CHANDRAKAR	AGE/SEX	24Y/M
		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD		SAMPLE RECEIVING DATE	26/05/2025
SPECIMEN	BLOOD	REPORT RELEASING DATE	26 /05/2025

BLOOD SUGAR FASTING & PP

INVESTIGATION	RESULT	REFERENCE RANGE
Sample Type		
FASTING BLOOD SUGAR	73	70-100 mg/dL
BLOOD SUGAR PP	109	100-140 mg/dL

Clinical Note :
Elevated glucose levels (hyperglycernia) are the most aften encounterd clinical in the setting of diabetes mellitus but they may also occur with pancreatic neoplasms , hyperthyroisism and adrenocortical dysfunction. Decreased glucose levels (hypoglycemia) may result from endogenous or exogenous insulin excess,prolonged starvation,or liver desease

Fasting glucose	2 hours pp glucose	Diagnosis
<100	<140	Normal
100 to 125	140 to 199	Pre diabetes
>126	>200	Diabetes

A level of 126 mg/dL or above , confirmed by repeating the test on another day , means a person has diabetes IGT (2 hrs post meal),means a personhas an increased risk of developing type 2 diabetes but does not have it yet a 2 hour glucose level of 200 mg/dL or above ,confirmed by repeating the test on another day ,means a person has diabetes

-----End of report -----

Technician
Reports checked by

consultant
clinical biochemistry labortory

NOTE-These reports are for assisting doctors in their treatment and not for medico-legal purposes and should be correlated clinically

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RAIPUR INSTITUTE OF MEDICAL SCIENCE

24 Hour Helpline

Bhansoj Road Off NH -6, Raipur 0771 - 3053060

PATIENT NAME	JAYESH CHANDRAKAR	AGE/SEX	24Y/MALE
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD	CAMP	SAMPLE RECEIVING DATE	26-05-2025
SPECIMEN	SERUM	REPORT RELEASING DATE	26-05-2025

BIOCHEMISTRY REPORT

LIPID PROFILE-

Test Name	Observed Value	Reference Range
Total Cholesterol	142	Desirable <200 mg/dL Borderline High 200- 239 mg/dL High Risk >239 mg/dL
Triglycerides	110	Optimal <150 mg/dL Borderline High 150-199 mg/dL High 200-499 mg/dL Very high > 500 mg/dL
HDL Cholesterol	49	Male: 35-79.5 mg/dL, Female: 42-88 mg/dL
LDL Cholesterol	71	Optimal <100 mg/Dl Above Optimal 100-129 mg/Dl Borderline High 130-159 mg/Dl High 160-189 mg/Dl Very High >190 mg/Dl
Very Low Density Lipoproteins (VLDL)	22	20-40 mg/Dl
CHOL/HDL Ratio	2.89	3.3-4.4
LDL/HDL Ratio	1.44	0.5-3.0

Test done on random sample. kindly correlate clinically...!!

RAIPUR INSTITUTE OF MEDICAL SCIENCES

Technician
(Reports Checked By)

Consultant
Clinical biochemistry laboratory

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

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DEPARTMENT OF MICROBIOLOGY

Patient`s Name	JAYESH CHANDRAKAR	**AGE/SEX**	24Y/MALE
Lab No		**PATIENT ID**	
Ref by Dr.	RIMS	**OPD /IPD:**	
Ward	CAMP	**Sample Receiving Date**	26/05/2025
Specimen	Serum	**Report Releasing Date**	27/05/2025

SEROLOGILCAL TEST REPORT

S. No.	TEST	METHOD	RESULT
31.	ASO Titer	Latex Agglutination Test	
2.	CRP	Quantative Test	
3.	RA Factor	Latex Agglutination Test	
4	Dengue Test	Rapid Card Test	
5.	Widal Test	Slide Agglutination Test	
6.	Direct Coombs Test	Agglutination Test	
7.	In-direct Coombs Test	Agglutination Test	
8.	VDRL Antigen Test	Rapid Card Test	
9.	HbsAg	Rapid Card Test	NON-REACTIVE
10.	Anti-HCV	Rapid Card Test	
11.	HIV 1 &2	Rapid Card Test	
Please Note:-Kindly correlate clincally.			

TECH. SINGH

MICROBIOLOGIST

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RIMS HOSPITAL URLA

(A unit of LORD BUDDHA EDUCATIONAL SOCIETY)

Health For All

PT. NAME : MR.JAYESH CHANDRAKAR AGE / SEX: 24Y / M
PATIENT ID : RIMS/ DATE:13-05- 2025
REF. DR. / DEPT : RIMS HOSPITAL, URLA (OPD)

X RAY CHEST (PA VIEW)

- Trachea is central.
- Lung fields are clear bilaterally.
- No evidence of consolidation, collapse, or effusion.
- Cardiac silhouette is normal in size and contour.
- Mediastinal contours are normal.
- Diaphragmatic domes are normal in position and outline.
- Costophrenic angles are sharp.
- Bony thorax appears intact, no fractures seen.

ADVISED: Clinical correlation.

RESIDENT DOCTOR

Dr. Kashi Nath
DR. KASHI NATH SARKAR
REG NO-C.G.M.C 3357/2011
MBBS
DEPARTMENT - RADIOLOGYA

RIMS Rural Health & Training Center (RH&TC) Industrial Corporation Building, Near Axis Bank, Urla, Dist.-Raipur, Pin – 492003, Contact Number – 91091-90902

Medical College (Main Campus) – Raipur Institute Of Medical Sciences (750 Beded Hospital & Medical College) at Bhansoj Road . Off, NH-06, Village-Godhi, Raipur (C.G.), Mob. No.-9109190914, 9303081217 Fax : 0771-3053089, www.rimsindia.ac.in

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RIMS HOSPITAL URLA

(A unit of LORD BUDDHA EDUCATIONAL SOCIETY)

Health For All

PT. NAME : MR. JAYESH CHANDRAKAR AGE / SEX:24 Y / M
PATIENT ID : RIMS/ DATE: 13/05/2025
REF. DR. / DEPT : RIMS HOSPITAL, URLA (OPD)

SONOGRAPHY OF WHOLE ABDOMEN

LIVER: The liver is normal in size, shape and has smooth margins. It is uniformly isoechoeic with normal echotexture. No SOL is seen. Intra-hepatic biliary radicals are not dilated.

GALL BLADDER: The gall bladder is well distended. No intra-luminal calculi or mass lesion is seen. Its wall thickness is normal.

COMMON BILE DUCT & PORTAL VEIN: The common bile duct is normal in caliber. No calculi are seen in it. The portal vein is normal in calibre and course.

SPLEEN: The spleen is normal in size and shape. Its echotexture is homogeneous. No evidence of focal lesion is noted.

PANCREAS: The pancreas is normal in size, shape, contours and echotexture. No evidence of solid or cystic mass lesion is noted.

KIDNEYS: Both kidneys have normal cortical echotexture and have smooth margins. Cortico-medullary differentiation is maintained.

Right kidney measures ~8.8*4.7 cms. No calculus or hydronephrosis seen in right kidney.

Left kidney measures ~ 8.5*4.0 cms. No calculus or hydronephrosis seen in left kidney.

URINARY BLADDER: The urinary bladder is well distended. It shows uniformly thin walls and sharp mucosa. No intra-luminal calculus or diverticulum is seen.

PROSTATE: The prostate is normal in size and measures ~ ---10.46-cc in volume. No focal lesion seen.

No free fluid is seen in the peritoneal cavity at the time of examination.

PROVISIONAL IMPRESSION :

- **No significant abnormality detected.**

ADVISED: Clinical correlation.

Dr. Kashinath
DR. KASHI NATH SARKAR
REG NO-C.G.M.C 3357/2011
MBBS
DEPARTMENT - RADIOLOGYA

DR.KASHINATH SARKAR
MBBS, MD RADIODIAGNOSIS

RIMS Rural Health & Training Center (RH&TC) Industrial Corporation Building, Near Axis Bank, Urla, Dist.-Raipur, Pin – 492003, Contact Number – 91091-90902

Medical College (Main Campus) – Raipur Institute Of Medical Sciences (750 Beded Hospital & Medical College) at Bhansoj Road . Off, NH-06, Village-Godhi, Raipur (C.G.), Mob. No.-9109190914, 9303081217 Fax : 0771-3053089, www.rimsindia.ac.in

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2025-5-26 12:28:59

ID:00002470

ID Card:

Name: Jayesh

Age: 24y

Weight(Kg): 89 kg

Gender: male

Height(cm): 176cm

BP(mmHg): 130/82

I

II

III

aVR

aVL

aVF

V1

V2

V3

V4

V5

V6

Conclusion

:1 Sinus Rhythm

** NORMAL ECG **

HR bpm 63

P-R ms 133

Q-R-S ms 1

QT/QTc ms 340/346

P/QRS/T AXES 50/66/60

RV5/SV1 1.81/1.03

RV5+SV1 mV

*The re ust be confirmed by doctor

Report Confirmed by:RAMKRISHNA

Dr Rajendra Gopal Gmsaraspur
MD Medicine
463/2005
Reg.No
our Inst Sciences

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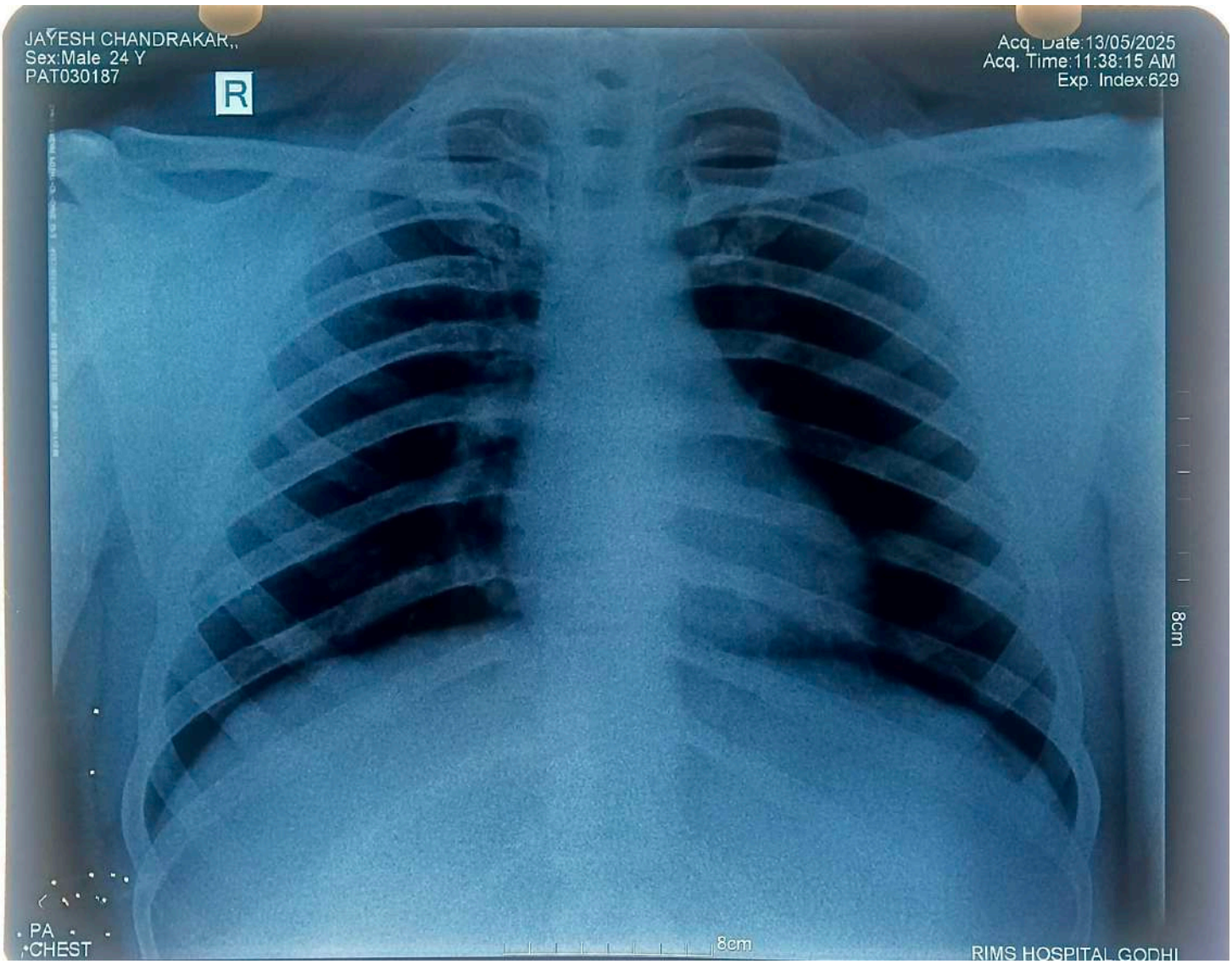

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9/10/25

Form 21

[Prescribed under Rule (19)]

Health Register

(In respect of persons employed in occupations declared to be dangerous operationsunder Section 87)

Name of Worker……GULSHAN KUMAR PATIL .....Age/ Sex……..25Y/M……
Name of Company……ALOK FERROW ALLOYS LTD.....Employee Code…. …1048……
Nature of occupatioN……CHARGING .....Date……03/05/25…… Annexure

PRE-EMPLOYMENT & PERIODIC MEDICAL EXAMINATION

(1) GENERAL EXAMINATION:

Height ..156… cm, Weight …50 kg BMI…20.5 Chest
Inspiration….81….cm, Expiration …76… cm
Throat...NORMAL.... Tongue……MOIST…Tonsils…N/A……
Teeth ..NORMAL..... Gums……NORMAL……
Thyroid……NORMAL……
Lymph nodes……NORMAL…… ……
Additional finding.....N/A.....

(2) CARDIO-VASCULAR SYSTEM:

Pulse… 84… mt. Regular/Irregular Peripheral Pulse-felt/not felt
BP….120/70…. min Hg Heart Sound: NORMAL.....
Murmur, If any...NO..... Additional finding (s), if any .....NO.....

(3) RESPIRATORY SYSTEM:

Shape of Chest: .....**NORMAL**.... Tubular…… Chest movements: …. **Symmetrical**
…… Trachea..... **Centrally**…… Breath sound **Vesicular**

(4) GASTRO-INTESTINAL SYSTEM:

Liver.....NP…… Spleen.....NP……
Any abdominal lumps: NO

(5) EXAMINATION OF EYES:

External Exam -NORMAL... Squint: ..... NO.....
Nystagmus: …… NO .....Fundus L/R
Night Blindness.....NO……
Colour vision- Normal
Individual colour identification- Normal

Distance vision (without glasses) Right….6/6... Left
…6/6…… (with glasses) Right…… Left ……

Near-vision (without glasse)Right…N/6….Left…N/6…

(with glasses) Right … ….. Left……

(6) EXAMINATION OF EAR NOSE & THROAT:

External Examination: .....**NAD**……

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(7) **GENITO URINARY SYSTEM:**

Hernia - NO..... Hydrocele- NO Varicocele - NO
Cryptorchidism-NO Phimosis.....NO Varicose veins- NO
Signs of STD.....NO .....

Other Examinations for Females:
Menarche..... yr. G. Para.....Menstrual irregularity..... if any

INVESTIGATIONS
(8) **Lab Investigations:**

Haemogram
Blood Group.....B.... Rh factor.....POSITIVE..... HB.....14.8 gm%
RBC .....5.49.....Platelet Count.....243
TLC.....8.82..... DLC: -N-67.6.L-24.3.E-1.9.M-5.8.B-0.04

Renal profile
Blood Urea: …20… S. Creatinine:…..0.70

Hepatic profile - S G O T…24... S G P T …19…. Alkaline Phosphat ….116…..S. Bilirubin ….0.59

Lipid Profile:
Serum Cholesterol .....180....Triglycerides.....144.....HDL…52.7....LDL.....99.....

Metabolic
Blood Sugar.....88.....Blood Sugar PP 105 S. Uric Acid…..4.6

Urine: Albumin....NIL.....**Sugar** ....NIL.....**Microscopy**.....
Stool: .....

(10) **Other Investigation**

11) **Pulmonary Function Test**

	FCV	FEV 1	FEV 1/ FVC
PREDICATED	4.00	3.49	82.71
MEASURED	5.14	3.92	76.26
% OF PREDICATED	128.64	112.22	92.21

12) **Audiometry examination**

PTA	**Lt. Ear -16 dB**	**Rt. Ear-16 dB**
Remark	**NORMAL**	

PTA of both ears at frequency ..... Cycles/sec

13. Details of Other specific medical examination carried out as mentioned in the respective schedules of 107 of C.G. Factory rules 1962-

For, Alok Ferro Alloys Ltd.

Factory Medical Officer
Dr. Raju Kumar Manhare
(MBBS & AFIH)
Reg. No. : C.G.M.C. 7111/2017

Signature (with date) of Factory Medical Officer

Signature (with date) Certifying surgeon

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

Health For All

Bhansoj Road, Off. NH-6, Gram-Godhi, Raipur (C.G.)
Tel.: 91-0771-3053060-87, Fax : 91-0771-3053088-89, www.rimsindia.ac.in
Department of ENT

AUDIOLOGICAL EVALUATION

OPD No. ..... Date 02/05/23 Audio No. .....

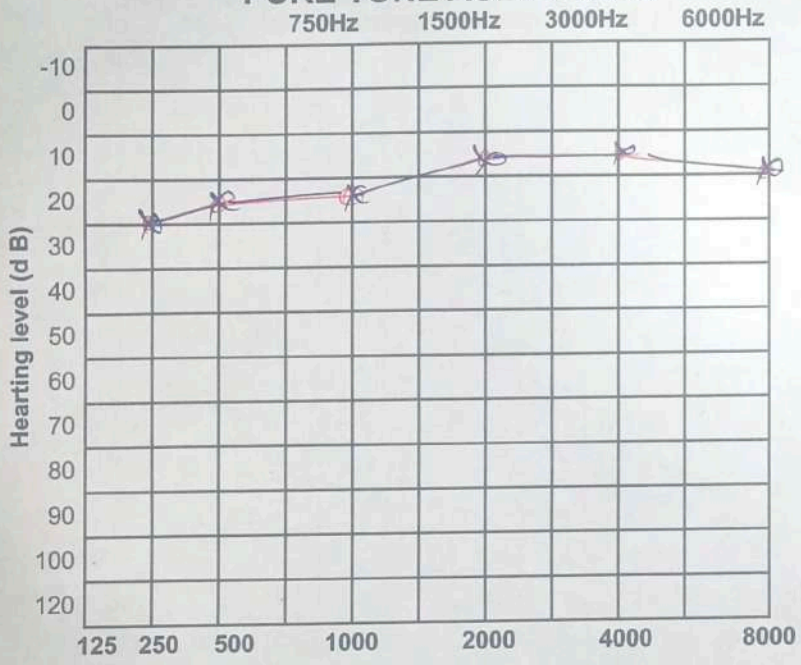
Name Mr. Gulshan Kumar patil Age / Sex 25/M

Address ..... Ph. No. 9109017533

Tested by ..... Audiometer Used ..... Per/Post Treatment .....

Complaint :-

PURE TONE AUDIOGRAM



KEY OF SYMBOLS

Right	Air Conditions	Left
	Unmasked Three Hold Masked Three Should	
	No Responce	
	Unmasked Three Hold Masked Three Should	
	Bone Conducts	
	Unmasked Three Hold Masked Three Should	
	No Responce	
	Unmasked Three Hold Masked Three Should	
	Sound Field	
Response	S	
No Response	S	
	Audio Metric	

TEST / EAR	RINNE T.F.T.	WEBER T.F.T.	AUDIOMETRIC WEBER		
			500	1000	2000
RT.					
LT.					

SPEECH AUDIOMETRY

	PTA (db HL)	SRT (db HL)	SDT (db HL)	SDS %	MCL	UCL
RIGHT EAR	16 dB					
LEFT EAR	16 dB					

TEST CONDITION

PROVISTIONAL DIAGNOSIS :

Right Ear :- Normal hearing sensitivity

Left Ear :- Normal hearing sensitivity

Recommendation :-

Dr. Nitinwre

DR. NITINWRE ASHOK ZADE
REG NO-54603
MS ENT
DEPARTMENT - ENT

AUDIOLOGIST

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Case number:

Name:MR GULSHAN KU.PATIL

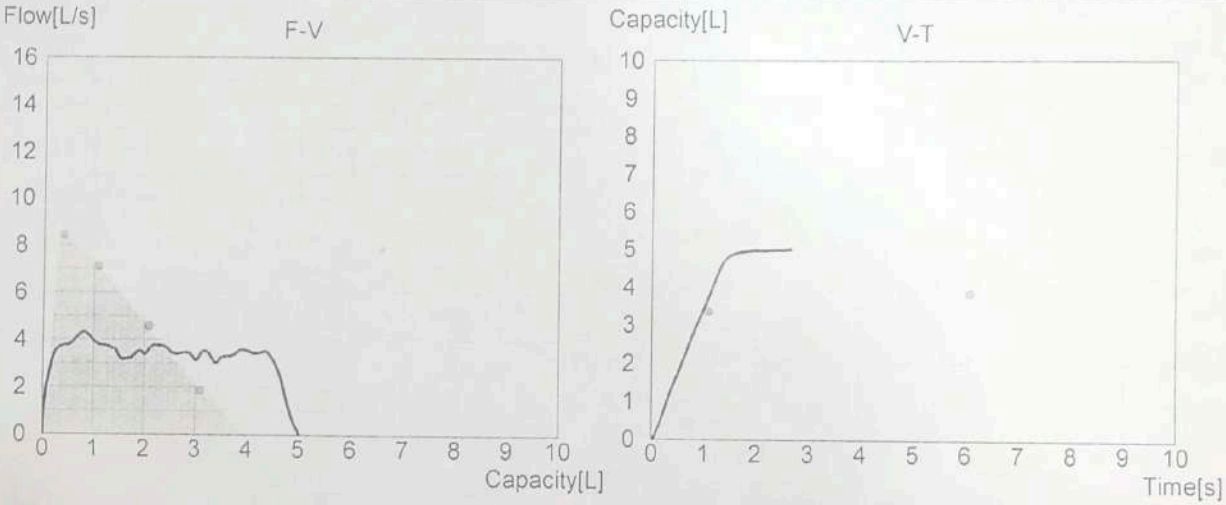
Gender:Male | Age:25 | Height:156 cm | Weight:50 kg

Smoke:Yes | BDT:No | Equation:ECSC | Phone:

Test date:2025-05-02 17:50:38

Medical history:

Parameter	Unit	MEAS	PRED	PRED%	LLN	BDT diff	BDT rate
FVC	L	5.14	4.00	128.64%	2.99	-	-
FEV1	L	3.92	3.49	112.22%	2.65	-	-
FEV1/FVC	%	76.26	82.71	92.21%	70.92	-	-
PEF	L/s	4.64	8.65	53.62%	6.66	-	-
FEF2575	L/s	3.52	4.65	75.68%	2.94	-	-
FEF25	L/s	3.84	7.32	52.44%	4.51	-	-
FEF50	L/s	3.61	4.79	75.41%	2.62	-	-
FEF75	L/s	3.48	2.08	167.18%	0.80	-	-
EV	ml	115.00(2.24%FVC)	-	-	-	-	-
FET	s	2.69	6.00	44.83%	-	-	-
EOTV	ml	89.00	-	-	-	-	-
PEFT	ms	252.00	-	-	-	-	-



Test result: Spirometry all the parameter are Normal

Dr. Kambley

DR. KAMBLEY RAMU WATUJI
REG NO-MC-7823/2018
MBBS, MD
DEPARTMENT-CHEST & PULMONARY

Operator:

Physician:

Reporting date: 2025-04-29

Device ID: PULMO022489

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DEPARTMENT OF BIOCHEMISTRY

PATIENT NAME	MR GULSHAN KUMAR	AGE/SEX	25Y/M
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD		SAMPLE RECEIVING DATE	03/05/2025
SPECIMEN	BLOOD	REPORT RELEASING DATE	03/05/2025

BLOOD SUGAR FASTING & PP

INVESTIGATION	RESULT	REFERENCE RANGE
Sample Type		
FASTING BLOOD SUGAR	76	70-100 mg/dL
BLOOD SUGAR PP	105	100-140 mg/dL

Clinical Note :
Elevated glucose levels (hyperglycernia) are the most aften encounterd clinical in the setting of diabetes mellitus but they may also occur with pancreatic neoplasms , hyperthyroisism and adrenocortical dysfunction. Decreased glucose levels (hypoglycemia) may result from endogenous or exogenous insulin excess,prolonged starvation,or liver desease

Fasting glucose	2 hours pp glucose	Diagnosis
<100	<140	Normal
100 to 125	140 to 199	Pre diabetes
>126	>200	Diabetes

A level of 126 mg/dL or above , confirmed by repeating the test on another day , means a person has diabetes IGT (2 hrs post meal),means a personhas an increased risk of developing type 2 diabetes but does not have it yet a 2 hour glucose level of 200 mg/dL or above ,confirmed by repeating the test on another day ,means a person has diabetes

-----End of report -----

Technician
(Report checked by

RAIPUR INSTITUTE OF MEDICAL SCIENCES RIMS

consultant
clinical biochemistry labortory

NOTE-These report are for treating doctors in their treatment and not for medico-legal purposes and should be correlated clinically

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RAIPUR INSTITUTE OF MEDICAL SCIENCE

24 Hour Helpline

Bhansoj Road Off NH -6, Raipur 0771 - 3053060

PATIENT NAME	GULSHAN KUMAR PATIL	AGE/SEX	25Y/MALE
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD	URLA PATIENT	SAMPLE RECEIVING DATE	02-05-2025
SPECIMEN	SERUM	REPORT RELEASING DATE	03-05-2025

BIOCHEMISTRY REPORT

LIPID PROFILE-

Test Name	Observed Value	Reference Range
Total Cholesterol	180	Desirable <200 mg/dL Borderline High 200- 239 mg/dL High Risk >239 mg/dL
Triglycerides	144	Optimal <150 mg/dL Borderline High 150-199 mg/dL High 200-499 mg/dL Very high > 500 mg/dL
HDL Cholesterol	52.7	Male: 35-79.5 mg/dL, Female: 42-88 mg/dL
LDL Cholesterol	99	Optimal <100 mg/Dl Above Optimal 100-129 mg/Dl Borderline High 130-159 mg/Dl High 160-189 mg/Dl Very High >190 mg/Dl
Very Low Density Lipoproteins (VLDL)	28	20-40 mg/Dl
CHOL/HDL Ratio	3.41	3.3-4.4
LDL/HDL Ratio	1.87	0.5-3.0

Test done on random sample. kindly correlate clinically...!!

Technician
(Reports Checked By)

Consultant
Clinical biochemistry laboratory

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

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DEPARTMENT OF MICROBIOLOGY

Patient`s Name	GULSHAN KUMAR PATIL	**AGE/SEX**	25Y/MALE
Lab No		**PATIENT ID**	
Ref by Dr.	RIMS	**OPD /IPD:**	
Ward	CAMP URLA	**Sample Receiving Date**	02/05/2025
Specimen	Serum	**Report Releasing Date**	03/05/2025

SEROLOGILCAL TEST REPORT

S. No.	TEST	METHOD	RESULT
31.	ASO Titer	Latex Agglutination Test	
2.	CRP	Quantative Test	
3.	RA Factor	Latex Agglutination Test	
4	Dengue Test	Rapid Card Test	
5.	Widal Test	Slide Agglutination Test	
6.	Direct Coombs Test	Agglutination Test	
7.	In-direct Coombs Test	Agglutination Test	
8.	VDRL Antigen Test	Rapid Card Test	
9.	HbsAg	Rapid Card Test	NON-REACTIVE
10.	Anti-HCV	Rapid Card Test	
11.	HIV 1 &2	Rapid Card Test	

Please Note:-Kindly correlate clincally.

TECH. SING.

RAIPUR INSTITUTE OF MEDICAL SCIENCES RIMS

MICROBIOLOGIST

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

Bhansoj Road Off NH -6, Raipur 0771 - 3053060

24 Hour Helpline

PATIENT NAME	GULSHAN KUMAR PATIL	AGE/SEX	25Y/MALE
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD		SAMPLE RECEIVING DATE	02-05-2025
SPECIMEN	SERUM	REPORT RELEASING DATE	02-05-2025

BIOCHEMISTRY REPORT

LIVER FUNCTION TEST

Test Name	Observed Value	Reference Range
Bilirubin Total	0.59	Upto 1.2 mg/dl
Bilirubin Direct	0.26	Upto 0.4 mg/dL
Bilirubin Indirect	0.33	0.2-0.8 mg/dL
S.G.O.T. (AST)	24	M:Upto 35 & F:Upto 31 IU/L
S.G.P.T. (ALT)	19	M:Upto 45 & F:Upto 34 IU/L
Alkaline Phosphatase	116	53-128 IU/L
S. LDH		2-12yrs: 180-360 & 12-60 yrs: 125-220 IU/L

SERUM PROTEINS

Total Protein		6.0-8.0 g/dL
Serum Albumin		3.5-5.5 g/dL
Serum Globulin		2.5-3.5.g/dL
A:G Ratio		1.2-1.5:1

RENAL FUNCTION TEST

B.Urea	20	15-40 mg/dL
S.Creatinine	0.70	F: 0.6-1.2 & M: 0.7-1.4 mg/dL
Uric Acid	4.6	F: 2.6-6.0 & M: 3.5-7.2 mg/dL

Calcium		9.0-11.0 mg/dL
Phosphorus		2.5-4.5 mg/dL
Magnesium	2.0	1.8-2.2 mg/dl

PANCREATIC FUNCTION TEST

S. Lipase		Upto 60 U/L
S. Amylase		Upto 80 U/L

BLOOD GLUCOSE

Blood Glucose, Random	88	70-140 mg/dL
Blood Glucose, Fasting		70-100 mg/dL
Blood Glucose, Post-Prandial		100-140 mg/dL

SERUM ELECTROLYTES

S. Sodium (Na+)		135-145 mmol/L
S. Potassium (K+)		3.5-5.0 mmol/L
S. Ca++		1.3-1.5 mmol/L
Iron		ug/dl

Kindly correlate clinically...!!s

Technician
(Reports Checked By)

Consultant
Clinical biochemistry laboratory

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

Bhansoj Road Off NH-06 Village Godhi,
Raipur (C.G.), 492101,India

Tel: 1800-208-1088 ,Email - info@rimsindia.ac.in , http://rimsindia.ac.in

DEPARTMENT OF PATHOLOGY
HAEMATOLOGY REPORT

C.R. No.	: 020525115/	Lab No	: 20250502771	Collected :	: 03-05-2025
Name	: MR. GULSAN KU. PATIL	Age/Sex	: 25 Year / M	Received	: 03-05-2025
Guardian	: S/O PATIL			Reported	: 03-05-2025
Department	: General Medicine	Select			ICGW/

Tests	Result	Units	Ref. Interval
CBC(Complete Haemogram)			
HB (Hemoglobin) SLS	14.8	gm/dl	13.0 - 17.0
TLC (Total Leucocytes Count) Electrical Impedance/ Flow Cytometry	8.82	10^3/µL	3.5 - 10
DLC (Differential Leucocytes Count) Flow Cytometry	-		-
Neutrophils Flow Cytometry/DC Detection	67.6	%	40 - 75
Lymphocytes Flow Cytometry/DC Detection	24.3	%	20 - 40
Eosinophils Flow Cytometry/DC Detection	1.9	%	01 - 06
Monocytes Flow Cytometry/DC Detection	5.8	%	02 - 10
Basophils Flow Cytometry/DC Detection	0.04	%	00 - 01
MCV Calculated	82.3	fl	80 - 100
MCHC Calculated	32.8	g/dl	31 - 37
RDW-CV Hydro Dynamic Focussing / DC Detection	**17.0 H**	%	11.6 - 14.0
Platelet Count Hydro Dynamic Focussing / DC Detection	243	10^3/µL	150 - 400
HCT Flow Cytometry/DC Detection	45.2	%	40 - 51
MCH Calculated	27.0	pg	26 - 34
RBC Count Hydro Dynamic Focussing / DC Detection	**5.49 H**	million/mm3	4.0 - 5.2

Technician

Pathologist

--- END OF REPORT --

This is a professional opinion and can not be used for medico legal purposes.

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

24 Hour Helpline, Health For All 0771 – 3268844,
Bhansoj Road, Off NH -6, Raipur

PATIENT NAME	GULSHAN KUMAR PATIL	AGE/SEX	25Y/MALE
LAB NO.	02771	PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD		SAMPLE RECEIVING DATE	02/05/2025
SPECIMEN	BLOOD	REPORT RELEASING DATE	02/05/2025

HAEMATOLOGY REPORT

TEST NAME	OBSERVED VALUE	NORMAL VALUE
BLOOD GROUP & RH	"B" POSITIVE	(Slides Method)

CHECKED BY

For

ASSITANT PROFESSOR

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

Teaching Hospital and Medical College

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

Bhansoj Road Off NH-06 Village Godhi,
Raipur (C.G.), 492101,India

Tel: 1800-208-1088 ,Email - info@rimsindia.ac.in

DEPARTMENT OF PATHOLOGY

URINE REPORT

O.R. No.	: 0205251158 /	Lab No	: 20250502771	Collected	: 03-05-2025
Name	: MR. GULSAN KU. PATIL	Age/Sex	: 25 Year / M	Received	: 03-05-2025
Guardian	: S/O PATIL			Reported	: 03-05-2025
Department	: General Medicine				

Tests		Result
Physical Examination		
Color		Pale Yellow
Volume		20
Appearance		Clear
Chemical Examination		
Albumin		NIL
Sugar		NIL
Ketone		-
Microscopic Examination		
Pus Cells	0 - 5	0-1
Epithelial Cells	0 - 5	2-3
RBC		Absent
Crystals		Absent
Bacteria		Absent
Cast		-
Others		-

********** End of Report **********

RAIPUR INSTITUTE OF MEDICAL SCIENCE PIMS

Technician

Print Date : 3/5/2025

Consultant Patholgist

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RIMS HOSPITAL URLA

(A unit of LORD BUDDHA EDUCATIONAL SOCIETY)

Health For All

PT. NAME : MR.GULSHAN KUMAR PATIL AGE / SEX: 25Y / M
PATIENT ID : RIMS/ DATE:15-05- 2025
REF. DR. / DEPT : RIMS HOSPITAL, URLA (OPD)

X RAY CHEST (PA VIEW)

- Trachea is central.
- Lung fields are clear bilaterally.
- No evidence of consolidation, collapse, or effusion.
- Cardiac silhouette is normal in size and contour.
- Mediastinal contours are normal.
- Diaphragmatic domes are normal in position and outline.
- Costophrenic angles are sharp.
- Bony thorax appears intact, no fractures seen.

ADVISED: Clinical correlation.

Dr. Kashi Nath
DR. KASHI NATH SARKAR
REG NO-S G M C 3357/2011
MBBS
DEPARTMENT - RADIOLOGYA

RESIDENT DOCTOR

RIMS Rural Health & Training Center (RH&TC) Industrial Corporation Building, Near Axis Bank, Urla, Dist.-Raipur, Pin – 492003, Contact Number – 91091-90902

Medical College (Main Campus) – Raipur Institute Of Medical Sciences (750 Beded Hospital & Medical College) at Bhansoj Road . Off, NH-06, Village-Godhi, Raipur (C.G.), Mob. No.-9109190914, 9303081217 Fax : 0771-3053089, www.rimsindia.ac.in

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RIMS HOSPITAL URLA

(A unit of LORD BUDDHA EDUCATIONAL SOCIETY)

Health For All

PT. NAME : MR.GULSHAN KUMAR PATIL AGE / SEX: 25Y / M
PATIENT ID : RIMS/ DATE: 15.05.2025
REF. DR. / DEPT : RIMS HOSPITAL, URLA (OPD)

SONOGRAPHY OF WHOLE ABDOMEN

LIVER: The liver is normal in size, shape and has smooth margins. It is uniformly isoechoeic with normal echotexture. No SOL is seen. Intra-hepatic biliary radicals are not dilated.

GALL BLADDER: The gall bladder is well distended. No intra-luminal calculi or mass lesion is seen. Its wall thickness is normal.

COMMON BILE DUCT & PORTAL VEIN: The common bile duct is normal in caliber. No calculi are seen in it. The portal vein is normal in calibre and course.

SPLEEN: The spleen is normal in size and shape. Its echotexture is homogeneous. No evidence of focal lesion is noted.

PANCREAS: The pancreas is normal in size, shape, contours and echotexture. No evidence of solid or cystic mass lesion is noted.

KIDNEYS: Both kidneys have normal cortical echotexture and have smooth margins. Cortico-medullary differentiation is maintained.

Right kidney measures ~ 9.3X3.4 cms. No calculus or hydronephrosis seen in right kidney.

Left kidney measures ~ 9.5X4.2 cms. No calculus or hydronephrosis seen in left kidney.

URINARY BLADDER: The urinary bladder is well distended. It shows uniformly thin walls and sharp mucosa. No intra-luminal calculus or diverticulum is seen.

PROSTATE: The prostate is normal in size and measures ~ 10cc in volume. No focal lesion seen.

No free fluid is seen in the peritoneal cavity at the time of examination.

PROVISIONAL IMPRESSION :

- **No significant abnormality detected.**

ADVISED: Clinical correlation.

Dr. Kashi Nath

DR. KASHI NATH SARKAR
REG NO-C G M C 3357/2011
MBBS
DEPARTMENT - RADIOLOGYA

DR.KASHINATH SARKAR
MBBS, MD RADIODIAGNOSIS

RIMS Rural Health & Training Center (RH&TC) Industrial Corporation Building, Near Axis Bank, Urla, Dist.-Raipur, Pin – 492003, Contact Number – 91091-90902

Medical College (Main Campus) – Raipur Institute Of Medical Sciences (750 Beded Hospital & Medical College) at Bhansoj Road . Off, NH-06, Village-Godhi, Raipur (C.G.), Mob. No.-9109190914, 9303081217 Fax : 0771-3053089, www.rimsindia.ac.in

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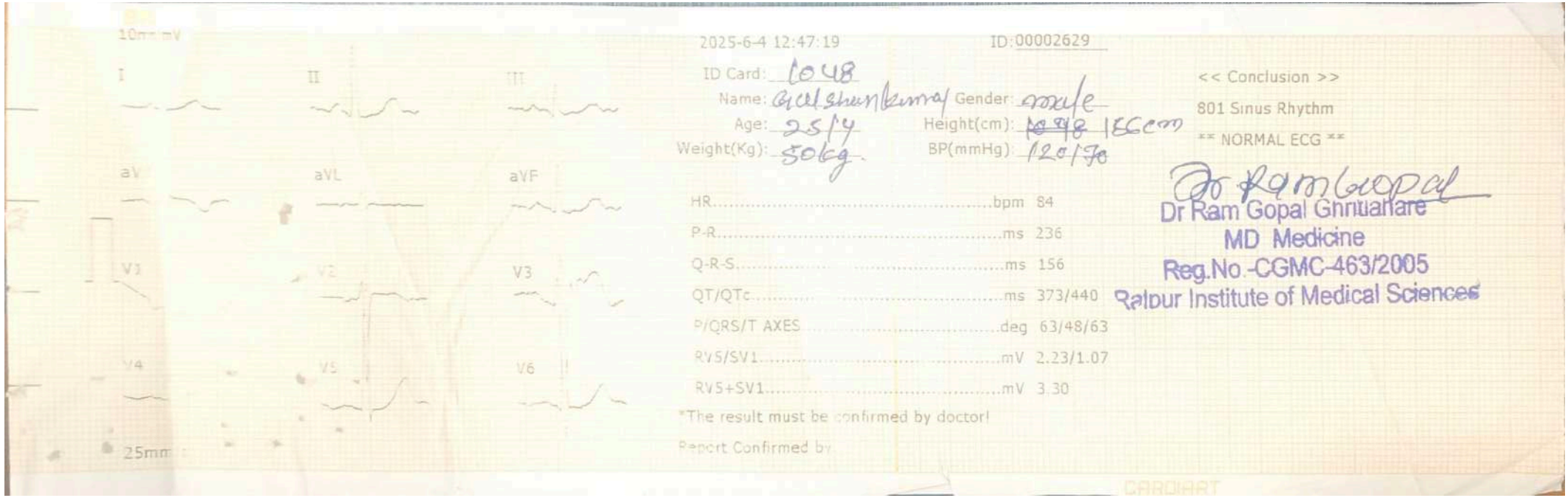

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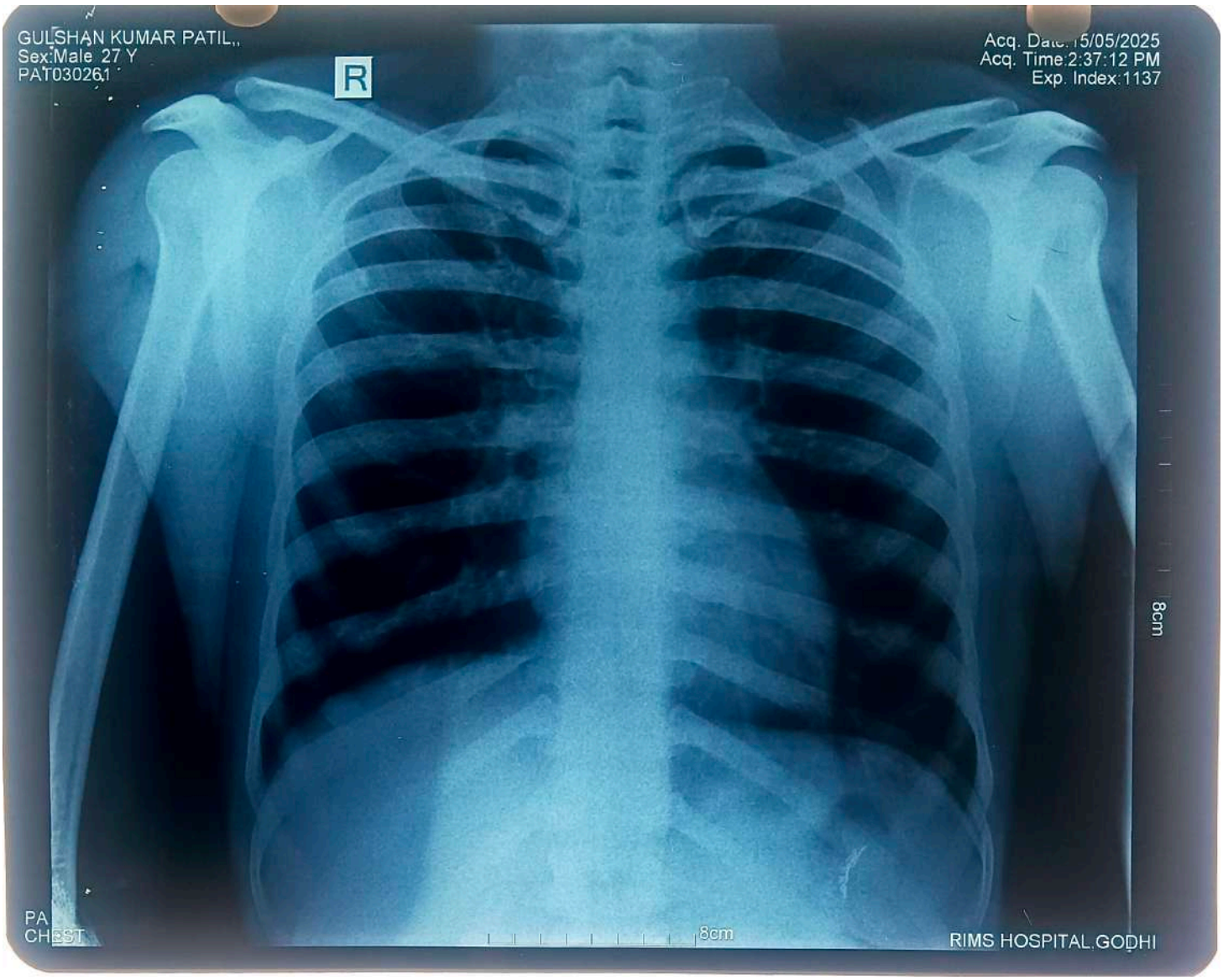

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16/10/25
02

Form 21
[Prescribed under Rule (19)]
Health Register

(In respect of persons employed in occupations declared to be dangerous operationsunder Section 87)

Name of Worker…….RASHMI RANJAN RAJALATA .....Age/ Sex…35Y/M……
Name of Company……ALAK FERRO ALLOYS LTD.Employee Code…1015……..
Nature of Occupation…….....SECURITY.....Date…02/05/25…… Annexure

PRE-EMPLOYMENT & PERIODIC MEDICAL EXAMINATION

(1) GENERAL EXAMINATION:

Height 166 cm, Weight 94 kg BMI… 34.1 Chest
SInspiration..93….cm, Expiration 89 cm
Throat...NORMAL.... Tongue……MOIST…Tonsils…N/A……
Teeth ..NORMAL..... Gums……NORMAL……
Thyroid……NORMAL……
Lymph nodes……NORMAL…… ……
Additional finding.....N/A.....

(2) CARDIO-VASCULAR SYSTEM:

Pulse 95 mt. Regular/Irregular Peripheral Pulse-felt/not felt
BP.120/90……. min Hg Heart Sound: NORMAL.....
Murmur, If any...NO..... Additional finding (s), if any .....NO.....

(3) RESPIRATORY SYSTEM:

Shape of Chest: .....**NORMAL**.... Tubular…… Chest movements: …. **Symmetrical**
…… Trachea..... **Centrally**……. Breath sound **Vesicular**

(4) GASTRO-INTESTINAL SYSTEM:

Liver.....NP……. Spleen.....NP……
Any abdominal lumps: NO

(5) EXAMINATION OF EYES:

External Exam -NORMAL... Squint: ..... NO.....
Nystagmus: …… NO .....Fundus L/R
Night Blindness.....NO……
Colour vision- Normal
Individual colour identification- Normal

Distance vision (without glasses) Right..6/6... Left
…6/6……. (with glasses) Right……. Left ……

Near-vision (without glasses) Right…N/6…….
Left…N/6…… (with glasses) Right … ….. Left…… …….

(6) EXAMINATION OF EAR NOSE & THROAT:

External Examination: .....**NAD**……

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(7) **GENITO URINARY SYSTEM:**

Hernia - NO…… Hydrocele- NO
Cryptorchidism-NO Phimosis.....NO
Signs of STD.....NO ……

Varicocele - NO
Varicose veins- NO

Other Examinations for Females:
Menarche…… yr. G. Para……Menstrual irregularity..... if any

INVESTIGATIONS
(8) Lab Investigations:

Haemogram
Blood Group.....B+..... Rh factor.....POSITIVE..... Hb 15.1 gm%
RBC .....5.05.....Platelet Count.....285SS
TLC.....7.57..... DLC: - .....

M-64.3, L-28.5, E-2.2, M-4.3, B-0.06.

Renal profile
Blood Urea: …25… S. Creatinine:0.69

Hepatic profile - S G O T…25. S G P T …20. Alkaline Phosphat 109..... S. Bilirubin 0.89

Lipid Profile:
Serum Cholesterol .....191.....Triglycerides.....177.....HDL....42.1.....LDL.....113.....

Metabolic
Blood Sugar.....87.....Blood Sugar PP 104....S. Uric Acid…2.4

Urine: Albumin....NIL.....**Sugar** ....NIL.....**Microscopy**.....
Stool: .....

(10) Other Investigation

11) Pulmonary Function Test

	FCV	FEV 1	FEV 1/ FVC
PREDICATED	3.54	4.31	82.10
MEASURED	2.41	3.63	66.34
% OF PREDICATED	68.08	80.91	84.14

12) Audiometry examination

PTA	**Lt. Ear -15 dB**	**Rt. Ear-25 dB**
Remark	**NORMAL**	

PTA of both ears at frequency ..... Cycles/sec

For, Alok Ferro Alloys Ltd.

13. Details of Other specific medical examination carried out as mentioned in the respective schedules of 107 of C.G. Factory rules 1962-

Factory Medical Officer
Dr. Raju Kumar Manhare
(MBBS & AFIH)
Reg. No. : C.G.M.C. 7111/2017

Signature (with date) of Factory Medical Officer

Signature (with date) Certifying surgeon

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Case number:

Name:MR RASHMI RANJAN

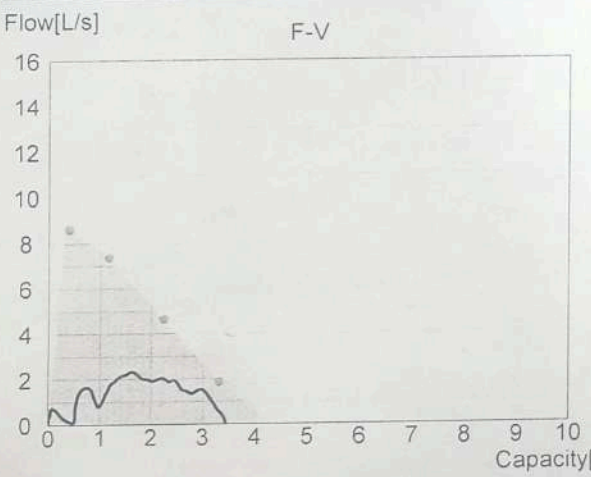
Gender:Male Age:35 Height:166 cm Weight:94 kg

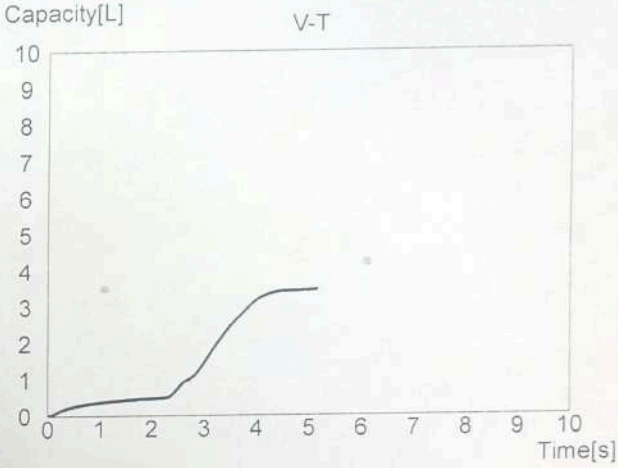
Smoke:No BDT:No Equation:ECSC Phone:

Test date:2025-05-02 14:15:56

Medical history:

Parameter	Unit	MEAS	PRED	PRED%	LLN	BDT diff	BDT rate
FVC	L	3.54	4.31	82.10%	3.31	-	-
FEV1	L	2.41	3.63	66.34%	2.79	-	-
FEV1/FVC	%	68.08	80.91	84.14%	69.12	-	-
PEF	L/s	2.51	8.84	28.40%	6.85	-	-
FEF2575	L/s	1.77	4.42	40.09%	2.70	-	-
FEF25	L/s	1.30	7.58	17.15%	4.77	-	-
FEF50	L/s	2.26	4.86	46.54%	2.69	-	-
FEF75	L/s	1.60	2.08	76.83%	0.80	-	-
EV	ml	590.00(16.67%FVC)	-	-	-	-	-
FET	s	5.17	6.00	86.17%	-	-	-
EOTV	ml	153.00	-	-	-	-	-
PEFT	ms	3080.00	-	-	-	-	-





Test result: spirometer all the parameter are Normal

Dr. Kambley

DR. KAMBLEY RAMU WATUJI
REG NO-MC-7823/2018
MBBS, MD
DEPARTMENT-CHEST & PULMONARY

Operator: Physician:

Reporting date: 2025-04-29

Device ID: PULMO022489

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

Bhansoj Road, Off. NH-6, Gram-Godhi, Raipur (C.G.)
Tel.: 91-0771-3053060-87, Fax : 91-0771-3053088-89, www.rimsindia.ac.in
Department of ENT

Health For All

AUDIOLOGICAL EVALUATION

OPD No. ..... Date. 02/05/25 ..... Audio No. .....

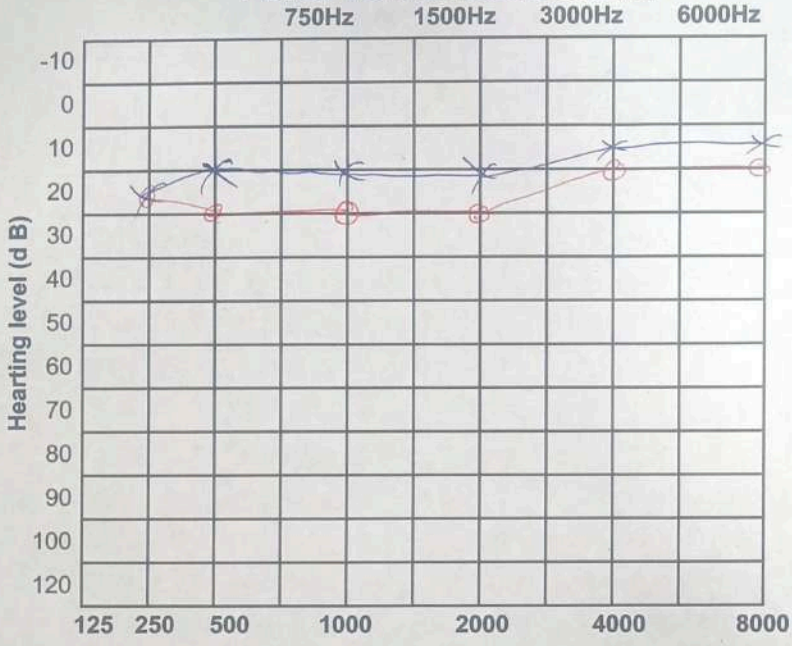
Name Mr. Rasmi Ranjan Rajalata ..... Age / Sex 35Y/M .....

Address ..... Ph. No. 9285530534

Tested by ..... Audiometer Used ..... Per/Post Treatment .....

Complaint :-

PURE TONE AUDIOGRAM



KEY OF SYMBOLS

Right	Air Conditions	Left
	Unmasked Three Hold Masked Three Should	
No Responce		
	Unmasked Three Hold Masked Three Should	
Bone Conducts		
	Unmasked Three Hold Masked Three Should	
No Responce		
	Unmasked Three Hold Masked Three Should	
Sound Field		
Response	S	
No Response	S	
Audio Metric		

TEST / EAR	RINNE T.F.T.	WEBER T.F.T.	AUDIOMETRIC WEBER		
			500	1000	2000
RT.					
LT.					

SPEECH AUDIOMETRY

	PTA (db HL)	SRT (db HL)	SDT (db HL)	SDS %	MCL	UCL
RIGHT EAR	25 dB					
LEFT EAR	15 dB					

TEST CONDITION

PROVISTIONAL DIAGNOSIS :

Right Ear :- Normal hearing sensitivity

Left Ear :- Normal hearing sensitivity

DR. NITINWRE ASHOK ZADBAJI
REG NO-54603
MBBS ENT
DEPARTMENT - ENT

Recommendation :-

AUDIOLOGIST

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RAIPUR INSTITUTE OF MEDICAL SCIENCE

24 Hour Helpline

Bhansoj Road Off NH -6, Raipur 0771 - 3053060

PATIENT NAME	RASHMI RANJAN	AGE/SEX	35Y/MALE
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD	URLA PATIENT	SAMPLE RECEIVING DATE	02-05-2025
SPECIMEN	SERUM	REPORT RELEASING DATE	03-05-2025

BIOCHEMISTRY REPORT

LIPID PROFILE-

Test Name	Observed Value	Reference Range
Total Cholesterol	191	Desirable <200 mg/dL Borderline High 200- 239 mg/dL High Risk >239 mg/dL
Triglycerides	177	Optimal <150 mg/dL Borderline High 150-199 mg/dL High 200-499 mg/dL Very high > 500 mg/dL
HDL Cholesterol	42.1	Male: 35-79.5 mg/dL, Female: 42-88 mg/dL
LDL Cholesterol	113	Optimal <100 mg/Dl Above Optimal 100-129 mg/Dl Borderline High 130-159 mg/Dl High 160-189 mg/Dl Very High >190 mg/Dl
Very Low Density Lipoproteins (VLDL)	35	20-40 mg/Dl
CHOL/HDL Ratio	4.53	3.3-4.4
LDL/HDL Ratio	2.68	0.5-3.0

Test done on random sample. kindly correlate clinically...!!

MEDICAL SCIENCES ★ RAIPUR

Technician
(Reports Checked By)

Consultant
Clinical biochemistry laboratory

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

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DEPARTMENT OF MICROBIOLOGY

Patient`s Name	RASHAMI RAMJAN	**AGE/SEX**	35/ MALE
Lab No		**PATIENT ID**	
Ref by Dr.	RIMS	**OPD /IPD:**	
Ward	CAMP URLA	**Sample Receiving Date**	02/05/2025
Specimen	Serum	**Report Releasing Date**	03/05/2025

SEROLOGILCAL TEST REPORT

S. No.	TEST	METHOD	RESULT
31.	ASO Titer	Latex Agglutination Test	
2.	CRP	Quantative Test	
3.	RA Factor	Latex Agglutination Test	
4	Dengue Test	Rapid Card Test	
5.	Widal Test	Slide Agglutination Test	
6.	Direct Coombs Test	Agglutination Test	
7.	In-direct Coombs Test	Agglutination Test	
8.	VDRL Antigen Test	Rapid Card Test	
9.	HbsAg	Rapid Card Test	NON-REACTIVE
10.	Anti-HCV	Rapid Card Test	
11.	HIV 1 &2	Rapid Card Test	
Please Note:-Kindly correlate clincally.			

RAIPUR INSTITUTE OF MEDICAL SCIENCES

TECH SIGN

MICROBIOLOGIST

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

Bhansoj Road Off NH -6, Raipur 0771 - 3053060

24 Hour Helpline

PATIENT NAME	RASHMI RANJAN RAJLATA	AGE/SEX	35Y/MALE
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD		SAMPLE RECEIVING DATE	02-05-2025
SPECIMEN	SERUM	REPORT RELEASING DATE	02-05-2025

BIOCHEMISTRY REPORT

LIVER FUNCTION TEST

Test Name	Observed Value	Reference Range
Bilirubin Total	0.89	Upto 1.2 mg/dl
Bilirubin Direct	0.36	Upto 0.4 mg/dL
Bilirubin Indirect	0.53	0.2-0.8 mg/dL
S.G.O.T. (AST)	25	M:Upto 35 & F:Upto 31 IU/L
S.G.P.T. (ALT)	20	M:Upto 45 & F:Upto 34 IU/L
Alkaline Phosphatase	109	53-128 IU/L
S. LDH		2-12yrs: 180-360 & 12-60 yrs: 125-220 IU/L

SERUM PROTEINS

Total Protein		6.0-8.0 g/dL
Serum Albumin		3.5-5.5 g/dL
Serum Globulin		2.5-3.5.g/dL
A:G Ratio		1.2-1.5:1

RENAL FUNCTION TEST

B.Urea	25	15-40 mg/dL
S.Creatinine	0.69	F: 0.6-1.2 & M: 0.7-1.4 mg/dL
Uric Acid	2.4	F: 2.6-6.0 & M: 3.5-7.2 mg/dL

Calcium		9.0-11.0 mg/dL
Phosphorus		2.5-4.5 mg/dL
Magnesium	1.9	1.8-2.2 mg/dl

PANCREATIC FUNCTION TEST

S. Lipase		Upto 60 U/L
S. Amylase		Upto 80 U/L

BLOOD GLUCOSE

Blood Glucose, Random	74	70-140 mg/dL
Blood Glucose, Fasting		70-100 mg/dL
Blood Glucose, Post-Prandial		100-140 mg/dL

SERUM ELECTROLYTES

S. Sodium (Na+)		135-145 mmol/L
S. Potassium (K+)		3.5-5.0 mmol/L
S. Ca++		1.3-1.5 mmol/L
Iron		ug/dl

Kindly correlate clinically...!!!

RAIPUR INSTITUTE OF MEDICAL SCIENCES

Technician
(Reports Checked By)

Consultant
Clinical biochemistry laboratory

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

Bhansoj Road Off NH-06 Village Godhi,
Raipur (C.G.), 492101,India

Tel: 1800-208-1088 ,Email - info@rimsindia.ac.in , http://rimsindia.ac.in

DEPARTMENT OF PATHOLOGY
HAEMATOLOGY REPORT

C.R. No.	: 020525111/	Lab No	: 20250502729	Collected :	: 03-05-2025
Name	: MRS. RASHMI RANJAN	Age/Sex	: 35 Year / F	Received	: 03-05-2025
Guardian	: W/O RANJAN			Reported	: 03-05-2025
Department	: General Medicine	Select			/

Tests	Result	Units	Ref. Interval
CBC(Complete Haemogram)			
HB (Hemoglobin) SLS	15.1	gm/dl	11.5 - 15.5
TLC (Total Leucocytes Count) Electrical Impedance/ Flow Cytometry	7.67	10^3/µL	3.5 - 10
DLC (Differential Leucocytes Count) Flow Cytometry	-		-
Neutrophils Flow Cytometry/DC Detection	64.3	%	40 - 75
Lymphocytes Flow Cytometry/DC Detection	28.5	%	20 - 40
Eosinophils Flow Cytometry/DC Detection	2.2	%	01 - 06
Monocytes Flow Cytometry/DC Detection	4.3	%	02 - 10
Basophils Flow Cytometry/DC Detection	0.06	%	00 - 01
MCV Calculated	90.2	fl	80 - 100
MCHC Calculated	33.2	g/dl	31 - 37
RDW-CV Hydro Dynamic Focussing / DC Detection	14.0	%	11.6 - 14.0
Platelet Count Hydro Dynamic Focussing / DC Detection	285	10^3/µL	150 - 400
HCT Flow Cytometry/DC Detection	45.6	%	35 - 47
MCH Calculated	29.9	pg	26 - 34
RBC Count Hydro Dynamic Focussing / DC Detection	5.05	million/mm3	3.8 - 5.2

RAIPUR INSTITUTE OF MEDICAL SCIENCES RIMS

Technician

Pathologist

--- END OF REPORT --

This is a professional opinion and can not be used for medico legal purposes.

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

24 Hour Helpline, Health For All 0771 – 3268844,
Bhansoj Road, Off NH -6, Raipur

PATIENT NAME	RASHMI RANJAN	AGE/SEX	35Y/MALE
LAB NO.	02729	PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD		SAMPLE RECEIVING DATE	02/05/2025
SPECIMEN	BLOOD	REPORT RELEASING DATE	02/05/2025

HAEMATOLOGY REPORT

TEST NAME	OBSERVED VALUE	NORMAL VALUE
BLOOD GROUP & RH	"B" POSITIVE	(Slides Method)

CHECKED BY

ASSITANT PROFESSOR

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

Teaching Hospital and Medical College

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DEPARTMENT OF BIOCHEMISTRY

PATIENT NAME	MR RASHMI RANJAN RAJALATA	AGE/SEX	35 Y/M
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD		SAMPLE RECEIVING DATE	26/05/2025
SPECIMEN	BLOOD	REPORT RELEASING DATE	26/05/2025

BLOOD SUGAR FASTING & PP

INVESTIGATION	RESULT	REFERENCE RANGE
Sample Type		
FASTING BLOOD SUGAR	87	70-100 mg/dL
BLOOD SUGAR PP	104	100-140 mg/dL

Clinical Note :
Elevated glucose levels (hyperglycernia) are the most aften encounterd clinical in the setting of diabetes mellitus but they may also occur with pancreatic neoplasms , hyperthyroisism and adrenocortical dysfunction. Decreased glucose levels (hypoglycemia) may result from endogenous or exogenous insulin excess,prolonged starvation,or liver desease

Fasting glucose	2 hours pp glucose	Diagnosis
<100	<140	Normal
100 to 125	140 to 199	Pre diabetes
>126	>200	Diabetes

A level of 126 mg/dL or above , confirmed by repeating the test on another day , means a person has diabetes IGT (2 hrs post meal),means a personhas an increased risk of developing type 2 diabetes but does not have it yet a 2 hour glucose level of 200 mg/dL or above ,confirmed by repeating the test on another day ,means a person has diabetes

-----End of report -----

RAIPUR INSTITUTE OF MEDICAL SCIENCES ★ RIMS

Technician
(Reports checked by

Consultant
clinical biochemistry labortory

NOTE- The reports are for assisting doctors in their treatment and not for medico-legal purposes and should be correlated clinically

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RAIPUR INSTITUTE OF MEDICAL SCIENCES
Bhansoj Road Off NH-06 Village Godhi,
Raipur (C.G.), 492101,India
Tel: 1800-208-1088 ,Email - info@rimsindia.ac.in

DEPARTMENT OF PATHOLOGY

URINE REPORT

C.R. No.	: 0205251119 /	Lab No	: 20250502729	Collected	: 03-05-2025
Name	: MRS. RASHMI RANJAN	Age/Sex	: 35 Year / F	Received	: 03-05-2025
Guardian	: W/O RANJAN			Reported	: 03-05-2025
Department	: General Medicine				

Tests		Result
Physical Examination		
Color		Pale Yellow
Volume		20
Appearance		Clear
Chemical Examination		
Albumin		NIL
Sugar		NIL
Ketone		-
Microscopic Examination		
Pus Cells	0 - 5	1-2
Epithelial Cells	0 - 5	0-1
RBC		Absent
Crystals		Absent
Bacteria		Absent
Cast		-
Others		-

********** End of Report **********

Technician

Print Date : 3/5/2025

Consultant Patholgist

This is a professional opinion and can not be used for medico legal purposes.

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RIMS HOSPITAL URLA

(A unit of LORD BUDDHA EDUCATIONAL SOCIETY)

Health For All

PT. NAME : MR.RASHMI RANJAN AGE / SEX: 35Y / M
PATIENT ID : RIMS/ DATE:02-05- 2025
REF. DR. / DEPT : RIMS HOSPITAL, URLA (OPD)

X RAY CHEST (PA VIEW)

- Trachea is central.
- Lung fields are clear bilaterally.
- No evidence of consolidation, collapse, or effusion.
- Cardiac silhouette is normal in size and contour.
- Mediastinal contours are normal.
- Diaphragmatic domes are normal in position and outline.
- Costophrenic angles are sharp.
- Bony thorax appears intact, no fractures seen.

ADVISED: Clinical correlation.

RAIPUR INSTITUTE OF MEDICAL SCIENCES

RESIDENT DOCTOR

Dr Kashinath
DR. KASHI NATH SARKAR
REG NO-C G M C 3157/2011
DEPARTMENT - RADIOLOGYA

RIMS Rural Health & Training Center (RH&TC) Industrial Corporation Building, Near Axis Bank, Urla, Dist.-Raipur, Pin – 492003, Contact Number – 91091-90902

Medical College (Main Campus) – Raipur Institute Of Medical Sciences (750 Beded Hospital & Medical College) at Bhansoj Road . Off, NH-06, Village-Godhi, Raipur (C.G.), Mob. No.-9109190914, 9303081217 Fax : 0771-3053089, www.rimsindia.ac.in

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RIMS HOSPITAL URLA

(A unit of LORD BUDDHA EDUCATIONAL SOCIETY)

Health For All

PT. NAME : MR. RASHMI RANJAN
PATIENT ID : RIMS/
REF. DR. / DEPT : RIMS HOSPITAL, URLA (OPD)

AGE / SEX: 35 Y / M
DATE: 02.052025

SONOGRAPHY OF WHOLE ABDOMEN

LIVER: The liver is normal in size, shape and has smooth margins. It is uniformly isoechoeic with normal echotexture. No SOL is seen. Intra-hepatic biliary radicals are not dilated.

GALL BLADDER: The gall bladder is well distended. No intra-luminal calculi or mass lesion is seen. Its wall thickness is normal.

COMMON BILE DUCT & PORTAL VEIN: The common bile duct is normal in caliber. No calculi are seen in it. The portal vein is normal in calibre and course.

SPLEEN: The spleen is normal in size and shape. Its echotexture is homogeneous. No evidence of focal lesion is noted.

PANCREAS: The pancreas is normal in size, shape, contours and echotexture. No evidence of solid or cystic mass lesion is noted.

KIDNEYS: Both kidneys have normal cortical echotexture and have smooth margins. Cortico-medullary differentiation is maintained.

Right kidney measures ~ 9.8 X 4.7 cms. No calculus or hydronephrosis seen in right kidney.

Left kidney measures ~ -10.2 X 5.1- cms. No calculus or hydronephrosis seen in left kidney.

URINARY BLADDER: The urinary bladder is well distended. It shows uniformly thin walls and sharp mucosa. No intra-luminal calculus or diverticulum is seen.

PROSTATE: The prostate is normal in size and measures ~ 22-cc in volume. No focal lesion seen.

No free fluid is seen in the peritoneal cavity at the time of examination.

PROVISIONAL IMPRESSION :

- **No significant abnormality detected.**

ADVISED: Clinical correlation.

DR. KASHINATH SARKAR
REG NO-C G M C 3357/2011
MBBS
DEPARTMENT - RADIOLOGYA

RESIDENT DOCTOR

RIMS Rural Health & Training Center (RH&TC) Industrial Corporation Building, Near Axis Bank, Urla, Dist.-Raipur, Pin – 492003, Contact Number – 91091-90902

Medical College (Main Campus) – Raipur Institute Of Medical Sciences (750 Beded Hospital & Medical College) at Bhansoj Road . Off, NH-06, Village-Godhi, Raipur (C.G.), Mob. No.-9109190914, 9303081217 Fax : 0771-3053089, www.rimsindia.ac.in

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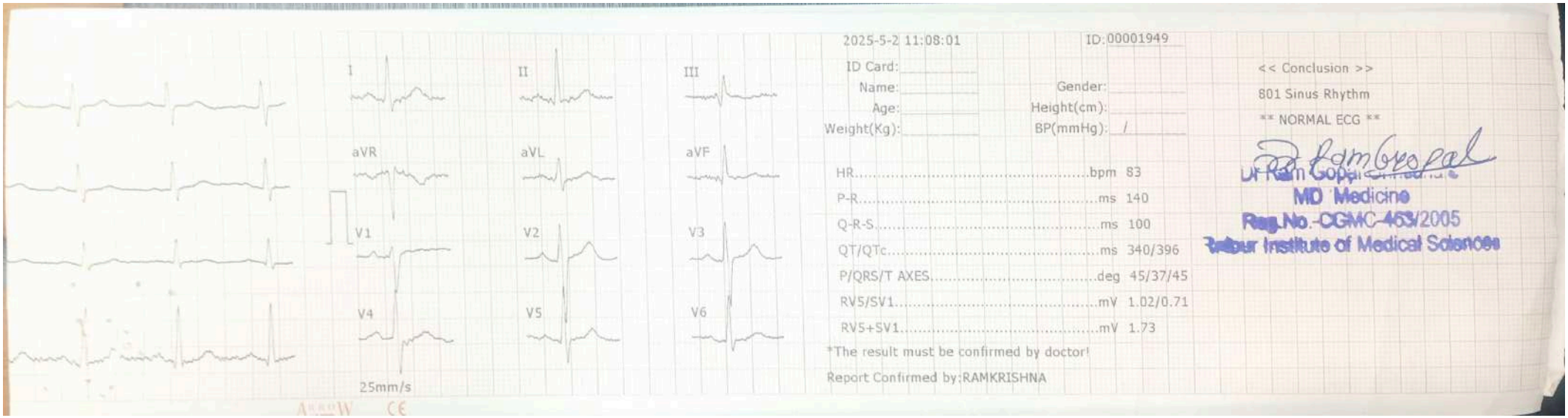

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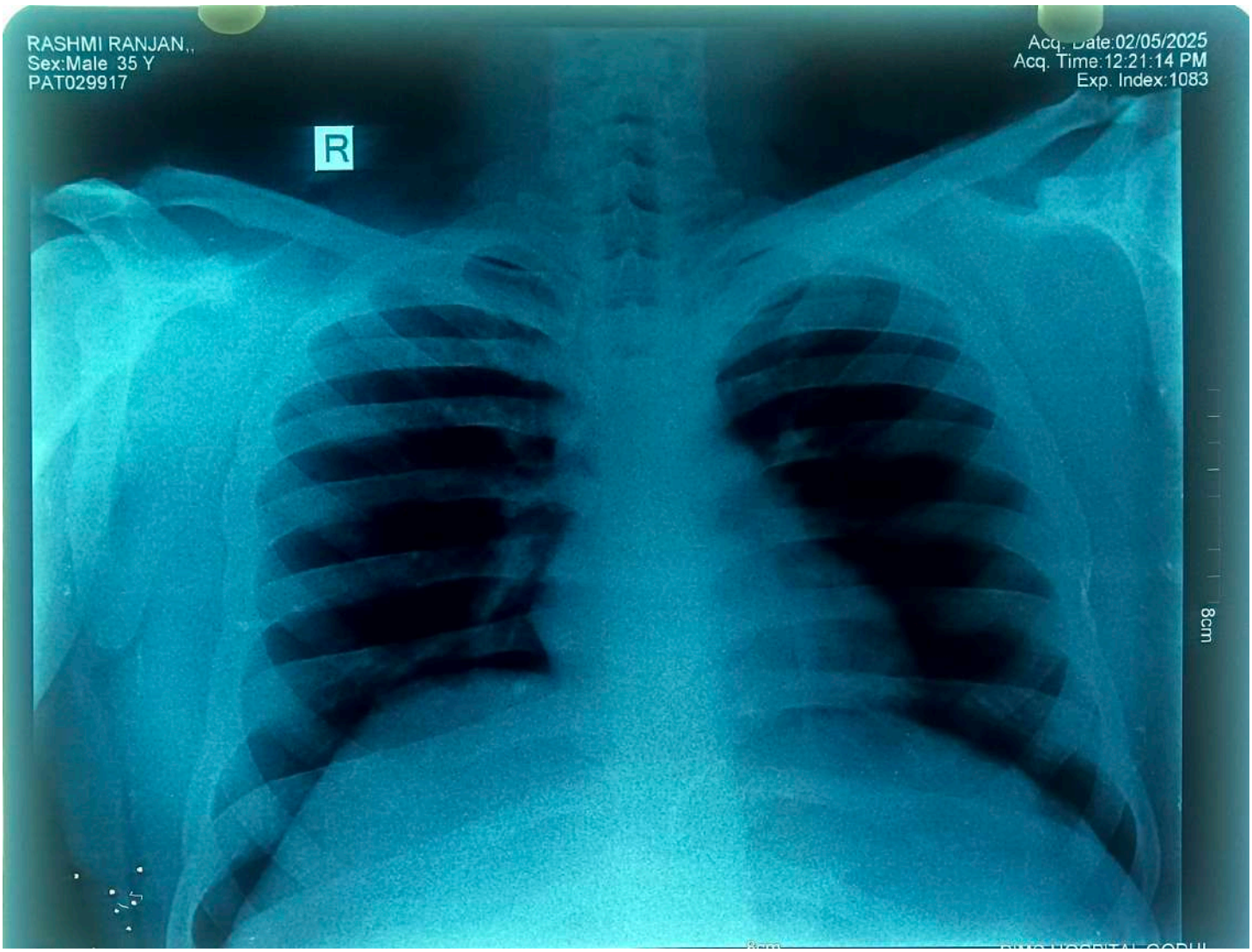

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Form 21
[Prescribed under Rule (19)]
Health Register

(In respect of persons employed in occupations declared to be dangerous operationsunder Section 87)

Name of Worker……YOVRAJ GRITLAHARE .....Age/ Sex…24Y/M……..……
Name of Company……ALLOK FERRO ALLOYS LTD.....Employee Code……..…..
Nature of Occupation…….....FITTER.....Date…24/05/25…… Annexure

PRE-EMPLOYMENT & PERIODIC MEDICAL EXAMINATION

(1) GENERAL EXAMINATION:

Height 155 cm, Weight 60 kg BMI… 25 Chest
SInspiration..94….cm, Expiration 90 cm
Throat...NORMAL.... Tongue……MOIST…Tonsils…N/A……
Teeth ..NORMAL..... Gums……NORMAL……
Thyroid……NORMAL……
Lymph nodes……NORMAL……
Additional finding.....N/A.....

(2) CARDIO-VASCULAR SYSTEM:

Pulse 79 mt. Regular/Irregular Peripheral Pulse-felt/not felt
BP.122/79……. min Hg Heart Sound: NORMAL.....
Murmur, If any...NO..... Additional finding (s), if any .....NO.....

(3) RESPIRATORY SYSTEM:

Shape of Chest: .....**NORMAL**.... Tubular…… Chest movements: …. **Symmetrical**
…… Trachea..... **Centrally**…… Breath sound **Vesicular**

(4) GASTRO-INTESTINAL SYSTEM:

Liver.....NP…… Spleen.....NP……
Any abdominal lumps: NO

(5) EXAMINATION OF EYES:

External Exam -NORMAL... Squint: ..... NO.....
Nystagmus: …… NO .....Fundus L/R
Night Blindness.....NO……
Colour vision- Normal
Individual colour identification- Normal

Distance vision (without glasses) Right..6/6... Left
…6/……. (with glasses) Right……. Left ……

Near-vision (without glasses) Right…N/6…….
Left…N/6…… (with glasses) Right ….. Left… ….

(6) EXAMINATION OF EAR NOSE & THROAT:

External Examination: .....**NAD**……

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(7) GENITO URINARY SYSTEM:

Hernia - NO…… Hydrocele- NO
Cryptorchidism-NO Phimosis.....NO
Signs of STD.....NO ……

Varicocele - NO
Varicose veins- NO

Other Examinations for Females:
Menarche…… yr. G. Para……Menstrual irregularity ..... if any

INVESTIGATIONS
(8) Lab Investigations:

Haemogram
Blood Group.....B+..... Rh factor.....POSITIVE..... Hb 14.4 gm%
RBC .....4.63.....Platelet Count.....233
TLC.....6.50..... DLC: - .....
N-54.7, L-34.4, E-3.5, M-6.6, B-0.8

Renal profile
Blood Urea: ….22… S. Creatinine:0.56

Hepatic profile - S G O T…23. S G P T …21. Alkaline Phosphat 110..... S. Bilirubin 0.49

Lipid Profile:
Serum Cholesterol .....177.....Triglycerides.....167.....HDL....38.....LDL.....106.....

Metabolic
Blood Sugar.....111.....Blood Sugar PP 120.S. Uric Acid…2.5

Urine: Albumin....NIL.....**Sugar** ....NIL.....**Microscopy**.....
Stool: .....

(10) Other Investigation

11) Pulmonary Function Test

	FCV	FEV 1	FEV 1/ FVC
PREDICATED	3.96	3.48	82.89
MEASURED	3.36	3.36	100.00
% OF PREDICATED	84.76	96.58	120.64

12) Audiometry examination

PTA	**Lt. Ear -15 dB**	**Rt. Ear-16 dB**
Remark	**NORMAL**	

PTA of both ears at frequency ..... Cycles/sec

13. Details of Other specific medical examination carried out as mentioned in the respective schedules of 107 of C.G. Factory rules 1962-

For Aloi Ispat Alloys Ltd.

Factory Medical Officer
Dr. Raju Kumar Manhare
(MBBS & AFIH)
Reg. No. CGMC-7111/2017

Signature (with date) of Factory Medical Officer

Signature (with date) Certifying surgeon

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

Bhansoj Road, Off. NH-6, Gram-Godhi, Raipur (C.G.)
Tel.: 91-0771-3053060-87, Fax : 91-0771-3053088-89, www.rimsindia.ac.in
Department of ENT

AUDIOLOGICAL EVALUATION

OPD No. ..... Date 24/05/25 Audio No. .....

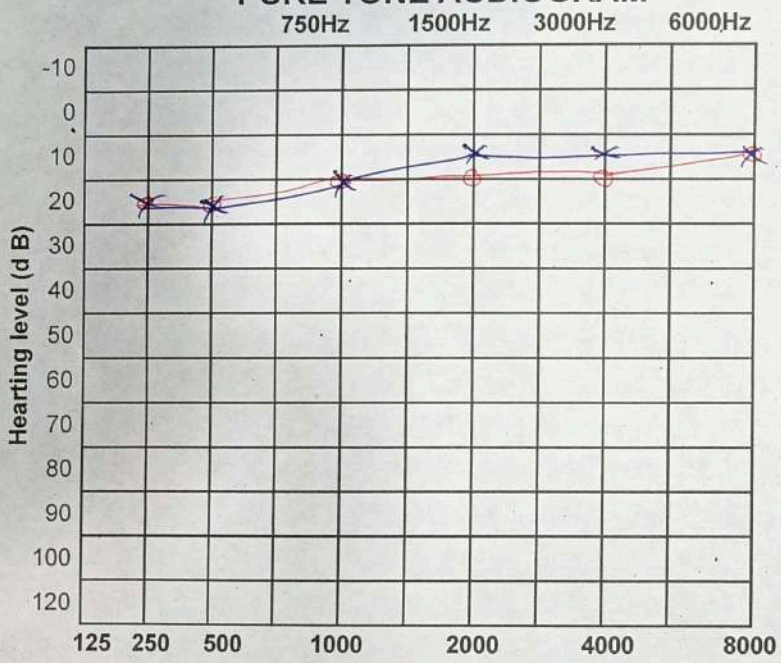
Name Mr. Yuraj gritlahre Age / Sex 24Y/M

Address ..... Ph. No. 7223964269

Tested by ..... Audiometer Used ..... Per/Post Treatment .....

Complaint :-

PURE TONE AUDIOGRAM



KEY OF SYMBOLS

Right	Air Conditions	Left
	Unmasked Three Hold Masked Three Should	
	No Responce	
	Unmasked Three Hold Masked Three Should	
	Bone Conducts	
	Unmasked Three Hold Masked Three Should	
	No Responce	
	Unmasked Three Hold Masked Three Should	
	Sound Field	
Response	S	
No Response	S	
	Audio Metric	

TEST / EAR	RINNE T.F.T.	WEBER T.F.T.	AUDIOMETRIC WEBER		
			500	1000	2000
RT.					
LT.					

SPEECH AUDIOMETRY

	PTA (db HL)	SRT (db HL)	SDT (db HL)	SDS %	MCL	UCL
RIGHT EAR	16 dB					
LEFT EAR	15 dB					

TEST CONDITION

PROVISTIONAL DIAGNOSIS :

Right Ear :- Narmal hearing sensitivity

Left Ear :- Narmal hearing sensitivity

Recommendation :-

DR. NITINWRE ASHOK ZADBAJI
REG NO-54603
MBBS ENT
DEPARTMENT - ENT

AUDIOLOGIST

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Case number:

Name:MR YUVRAJ GRITLAHRE

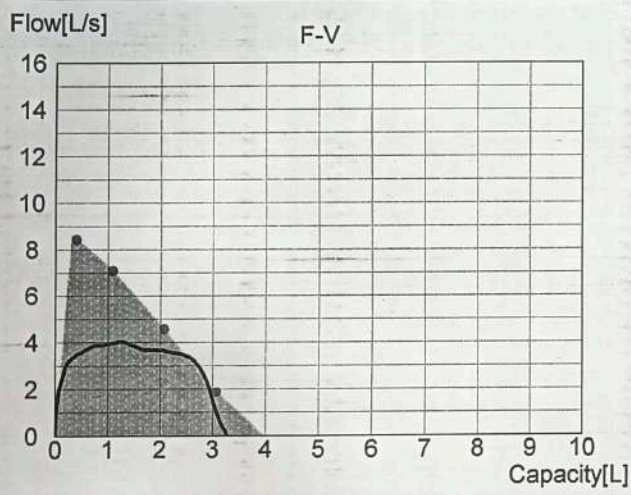
Gender:Male Age:24 Height:155 cm Weight:60 kg

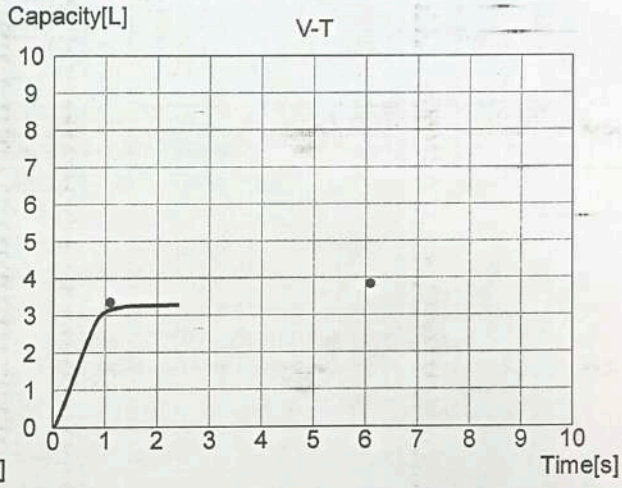
Smoke:No BDT:No Equation:ECSC Phone:

Test date:2025-05-24 17:42:13

Medical history:

Parameter	Unit	MEAS	PRED	PRED%	LLN	BDT diff	BDT rate
FVC	L	3.36	3.96	84.76%	2.93	-	-
FEV1	L	3.36	3.48	96.58%	2.61	-	-
FEV1/FVC	%	100.00	82.89	120.64%	70.92	-	-
PEF	L/s	4.36	8.64	50.49%	6.60	-	-
FEF2575	L/s	3.83	4.68	81.93%	2.92	-	-
FEF25	L/s	3.96	7.30	54.27%	4.46	-	-
FEF50	L/s	3.82	4.78	79.91%	2.58	-	-
FEF75	L/s	3.53	2.08	169.59%	0.77	-	-
EV	ml	128.00(3.81%FVC)	-	-	-	-	-
FET	s	2.42	6.00	40.33%	-	-	-
EOTV	ml	38.00	-	-	-	-	-
PEFT	ms	373.00	-	-	-	-	-





Test result: Spirometers all the Parameter are Normal

DR. KAMBLEY RAMU WATUJI
REG NO-MC-7823/2018
MBBS, MD
DEPARTMENT-CHEST & PULMONARY

Operator: Physician:

Reporting date: 2025-05-22

Device ID: PULMO022489

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

24 Hour Helpline, Health For All 0771 – 3268844,

PATIENT NAME	YUVRAJ	AGE/SEX	24Y/MALE
LAB N		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD	CAMP	SAMPLE RECEIVING DATE	24-05-2025
SPECIMEN	URINE	REPORT RELEASING DATE	24-05-2025

PHYSICAL EXAMINATION

VOLUME	:	20 ML
COLOUR	:	PALE YELLOW
APPEARANCE	:	CLEAR

CHEMICAL EXAMINATION

ALBUMIN	:	NIL
SUGAR	:	NIL

MICROSCOPIC EXAMINATION

PUS CELLS	:	2-3/HPF
EPITHELIAL CELL	:	1-2/HPF
CRYSTAL	:	ABSENT
BACTERIA		ABSENT
CAST	:	ABSENT
OTHERS	:	ABSENT

RAIPUR INSTITUTE OF MEDICAL SCIENCES RIMS

CHECKED BY

ASSITANT PROFESSOR

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

Teaching Hospital and Medical College

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DEPARTMENT OF BIOCHEMISTRY

PATIENT NAME	MR YUVRAJ LAHARE	AGE/SEX	24Y/M
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD		SAMPLE RECEIVING DATE	24/05/2025
SPECIMEN	BLOOD	REPORT RELEASING DATE	24/05/2025

BLOOD SUGAR FASTING & PP

INVESTIGATION	RESULT	REFERENCE RANGE
Sample Type		
FASTING BLOOD SUGAR	95	70-100 mg/dL
BLOOD SUGAR PP	120	100-140 mg/dL

Clinical Note :
Elevated glucose levels (hyperglycernia) are the most aften encounterd clinical in the setting of diabetes mellitus but they may also occur with pancreatic neoplasms , hyperthyroisism and adrenocortical dysfunction. Decreased glucose levels (hypoglycemia) may result from endogenous or exogenous insulin excess,prolonged starvation,or liver desease

Fasting glucose	2 hours pp glucose	Diagnosis
<100	<140	Normal
100 to 125	140 to 199	Pre diabetes
>126	>200	Diabetes

A level of 126 mg/dL or above , confirmed by repeating the test on another day , means a person has diabetes IGT (2 hrs post meal),means a personhas an increased risk of developing type 2 diabetes but does not have it yet a 2 hour glucose level of 200 mg/dL or above ,confirmed by repeating the test on another day ,means a person has diabetes

-----End of report -----

Technician
(Reports checked by

consultant
clinical biochemistry labortory

NOTE-These reports are for assisting doctors in their treatment and not for medico-legal purposes and should be correlated clinically

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RAIPUR INSTITUTE OF MEDICAL SCIENCE

24 Hour Helpline

Bhansoj Road Off NH -6, Raipur 0771 - 3053060

PATIENT NAME	YUVRAJ GHRITLRHRE	AGE/SEX	24Y/MALE
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD	CAMP	SAMPLE RECEIVING DATE	24-05-2025
SPECIMEN	SERUM	REPORT RELEASING DATE	25-05-2025

BIOCHEMISTRY REPORT

LIPID PROFILE-

Test Name	Observed Value	Reference Range
Total Cholesterol	177	Desirable <200 mg/dL Borderline High 200- 239 mg/dL High Risk >239 mg/dL
Triglycerides	167	Optimal <150 mg/dL Borderline High 150-199 mg/dL High 200-499 mg/dL Very high > 500 mg/dL
HDL Cholesterol	38	Male: 35-79.5 mg/dL, Female: 42-88 mg/dL
LDL Cholesterol	106	Optimal <100 mg/Dl Above Optimal 100-129 mg/Dl Borderline High 130-159 mg/Dl High 160-189 mg/Dl Very High >190 mg/Dl
Very Low Density Lipoproteins (VLDL)	33	20-40 mg/Dl
CHOL/HDL Ratio	4.65	3.3-4.4
LDL/HDL Ratio	2.78	0.5-3.0

Test done on random sample. kindly correlate clinically...!!

Technician
(Reports Checked By)

Consultant
Clinical biochemistry laboratory

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

24 Hour Helpline, Health For All 0771 – 3268844,
Bhansoj Road, Off NH -6, Raipur

PATIENT NAME	YUVRAJ GHRITLAHRE	AGE/SEX	24Y/MALE
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD	CAMP	SAMPLE RECEIVING DATE	24/05/2025
SPECIMEN	BLOOD	REPORT RELEASING DATE	24/05/2025

HAEMATOLOGY REPORT

TEST NAME	OBSERVED VALUE	NORMAL VALUE
BLOOD GROUP & RH	"O" POSITIVE	(Slides Method)

RAIPUR INSTITUTE OF MEDICAL SCIENCES RIMS

CHECKED BY

ASSITANT PROFESSOR

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

Teaching Hospital and Medical College

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

Bhansoj Road Off NH -6, Raipur 0771 - 3053060

24 Hour Helpline

PATIENT NAME	YUVRAJ	AGE/SEX	24Y/MALE
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD	CAMP	SAMPLE RECEIVING DATE	24-05-2025
SPECIMEN	SERUM	REPORT RELEASING DATE	25-05-2025

BIOCHEMISTRY REPORT

LIVER FUNCTION TEST

Test Name	Observed Value	Reference Range
Bilirubin Total	0.49	Upto 1.2 mg/dl
Bilirubin Direct	0.18	Upto 0.4 mg/dL
Bilirubin Indirect	0.31	0.2-0.8 mg/dL
S.G.O.T. (AST)	23	M:Upto 35 & F:Upto 31 IU/L
S.G.P.T. (ALT)	21	M:Upto 45 & F:Upto 34 IU/L
Alkaline Phosphatase	110	53-128 IU/L
S. LDH		2-12yrs: 180-360 & 12-60 yrs: 125-220 IU/L

SERUM PROTEINS

Total Protein		6.0-8.0 g/dL
Serum Albumin		3.5-5.5 g/dL
Serum Globulin		2.5-3.5.g/dL
A:G Ratio		1.2-1.5:1

RENAL FUNCTION TEST

B.Urea	22	15-40 mg/dL
S.Creatinine	0.56	F: 0.6-1.2 & M: 0.7-1.4 mg/dL
Uric Acid	2.5	F: 2.6-6.0 & M: 3.5-7.2 mg/dL

Calcium		9.0-11.0 mg/dL
Phosphorus		2.5-4.5 mg/dL
Magnesium		1.8-2.2 mg/dl

PANCREATIC FUNCTION TEST

S. Lipase		Upto 60 U/L
S. Amylase		Upto 80 U/L

BLOOD GLUCOSE

Blood Glucose, Random	111	70-140 mg/dL
Blood Glucose, Fasting		70-100 mg/dL
Blood Glucose, Post-Prandial		100-140 mg/dL

SERUM ELECTROLYTES

S. Sodium (Na+)		135-145 mmol/L
S. Potassium (K+)		3.5-5.0 mmol/L
S. Ca++		1.3-1.5 mmol/L
Iron		ug/dl

Kindly correlate clinically...!!!

Technician
(Reports Checked By)

Consultant
Clinical biochemistry laboratory

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

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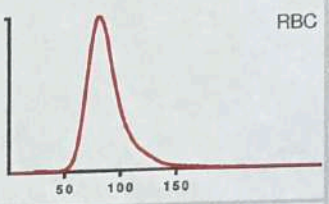
Results

Run Date	25/05/2025 10:49:45 AM	**Operator**	ABX
Last Name		**Sample ID**	AUTO_SID0026
First Name	YUVRAJ	**Department**	
Gender	Male	**Age** 24 Y	**Physician**
Patient ID	AUTO_PID06985	**Type**	Man
Date of birth			
Sample comments			

				Range
RBC	4.63		$10^6/\mu L$	4.20 - 6.00
HGB	14.4		g/dL	13.0 - 17.0
HCT	42.3		%	39.0 - 52.0
MCV	91.5		μm^3	76.0 - 100.0
MCH	31.2		pg	26.0 - 34.0
MCHC	34.1		g/dL	32.0 - 35.0
RDW-CV	14.1		%	11.0 - 16.0
RDW-SD	47.9		μm^3	37.0 - 49.0

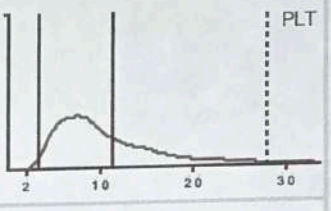


Recommended actions
Slide review

Alarms
WBC
Background Noise
LYM Interference

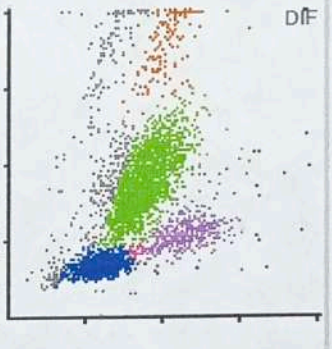
Susp. Pathologies
PLT aggregate or NRBC ?

				Range
PLT	233	*	$10^3/\mu L$	150 - 400
PCT	0.24	*	%	0.15 - 0.40
MPV	10.2	*	μm^3	8.0 - 11.0
PDW	17.2	*	μm^3	11.0 - 22.0
P-LCC	78		$10^3/\mu L$	44 - 140
P-LCR	33.6		%	18.0 - 50.0



				Range
WBC	6.50	*	$10^3/\mu L$	3.50 - 10.00

	#		Range	%		Range
NEU	3.54	*	1.60 - 7.00	54.7	*	40.0 - 73.0
LYM	2.23	*	1.00 - 3.00	34.4	*	15.0 - 45.0
MON	0.43	*	0.20 - 0.80	6.6	*	4.0 - 12.0
EOS	0.23	*	0.00 - 0.50	3.5	*	0.5 - 7.0
BAS	0.05	*	0.00 - 0.15	0.8	*	0.0 - 2.0
LIC	0.02	*	0.00 - 0.10	0.3	*	0.0 - 1.0



Slide Review

Neutrophil	Myeloblast	Anisocytosis
Lymphocyte	Promyelocyte	Hypochromia
Monocyte	Myelocyte	Polychromasia
Eosinophil	Metamyelocyte	Poikilocytosis
Basophil	Blast	Microcytosis
Atypical Lymphocyte	Target Cell	Macrocytosis
Other	Sickle Cell	Platelet Clumps

Reviewed on _____ by _____ Signature :

RIMS

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DEPARTMENT OF MICROBIOLOGY

Patient`s Name	YUVRAJ GHRITLAHRE	**AGE/SEX**	24Y/MALE
Lab No		**PATIENT ID**	
Ref by Dr.	RIMS	**OPD /IPD:**	
Ward	CAMP	**Sample Receiving Date**	24/05/2025
Specimen	Serum	**Report Releasing Date**	25/05/2025

SEROLOGILCAL TEST REPORT

S. No.	TEST	METHOD	RESULT
31.	ASO Titer	Latex Agglutination Test	
2.	CRP	Quantative Test	
3.	RA Factor	Latex Agglutination Test	
4	Dengue Test	Rapid Card Test	
5.	Widal Test	Slide Agglutination Test	
6.	Direct Coombs Test	Agglutination Test	
7.	In-direct Coombs Test	Agglutination Test	
8.	VDRL Antigen Test	Rapid Card Test	
9.	HbsAg	Rapid Card Test	NON-REACTIVE
10.	Anti-HCV	Rapid Card Test	
11.	HIV 1 &2	Rapid Card Test	
Please Note:-Kindly correlate clincally.			

TECH. SINGH

MICROBIOLOGIST

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DEPARTMENT OF MICROBIOLOGY

Patient`s Name	YUVRAJ GHRITLAHRE	**AGE/SEX**	24Y/MALE
Lab No		**PATIENT ID**	
Ref by Dr.	RIMS	**OPD /IPD:**	
Ward	CAMP	**Sample Receiving Date**	24/05/2025
Specimen	Serum	**Report Releasing Date**	25/05/2025

SEROLOGILCAL TEST REPORT

S. No.	TEST	METHOD	RESULT
31.	ASO Titer	Latex Agglutination Test	
2.	CRP	Quantative Test	
3.	RA Factor	Latex Agglutination Test	
4	Dengue Test	Rapid Card Test	
5.	Widal Test	Slide Agglutination Test	
6.	Direct Coombs Test	Agglutination Test	
7.	In-direct Coombs Test	Agglutination Test	
8.	VDRL Antigen Test	Rapid Card Test	
9.	HbsAg	Rapid Card Test	NON-REACTIVE
10.	Anti-HCV	Rapid Card Test	
11.	HIV 1 &2	Rapid Card Test	
Please Note:-Kindly correlate clincally.			

TECH. SINGH

MICROBIOLOGIST

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RIMS HOSPITAL URLA

(A unit of LORD BUDDHA EDUCATIONAL SOCIETY)

Health For All

PT. NAME : MR. YOVRAJ GHRITLAHARE
PATIENT ID : RIMS/
REF. DR. / DEPT : RIMS HOSPITAL, URLA (OPD)

AGE / SEX: 24 Y/M
DATE:24-05- 2025

X RAY CHEST (PA VIEW)

- Trachea is central.
- Lung fields are clear bilaterally.
- No evidence of consolidation, collapse, or effusion.
- Cardiac silhouette is normal in size and contour.
- Mediastinal contours are normal.
- Diaphragmatic domes are normal in position and outline.
- Costophrenic angles are sharp.
- Bony thorax appears intact, no fractures seen.

ADVISED: Clinical correlation.

DR. KASHI NATH SARKAR
REG NO-C G M C 3357/2011
MBBS
DEPARTMENT - RADIOLOGYA

RESIDENT DOCTOR

RIMS Rural Health & Training Center (RH&TC) Industrial Corporation Building, Near Axis Bank, Urla, Dist.-Raipur, Pin – 492003, Contact Number – 91091-90902

Medical College (Main Campus) – Raipur Institute Of Medical Sciences (750 Beded Hospital & Medical College) at Bhansoj Road . Off, NH-06, Village-Godhi, Raipur (C.G.), Mob. No.-9109190914, 9303081217 Fax : 0771-3053089, www.rimsindia.ac.in

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RIMS HOSPITAL URLA

(A unit of LORD BUDDHA EDUCATIONAL SOCIETY)

Health For All

PT. NAME : MR.YOVRAJ GRITLAHRE AGE / SEX:24 Y / M
PATIENT ID : RIMS/ DATE:24/5/ 2025
REF. DR. / DEPT : RIMS HOSPITAL, URLA (OPD)

SONOGRAPHY OF WHOLE ABDOMEN

LIVER: The liver is normal in size, shape and has smooth margins. It is uniformly isoechoeic with normal echotexture. No SOL is seen. Intra-hepatic biliary radicals are not dilated.

GALL BLADDER: The gall bladder is well distended. No intra-luminal calculi or mass lesion is seen. Its wall thickness is normal.

COMMON BILE DUCT & PORTAL VEIN: The common bile duct is normal in caliber. No calculi are seen in it. The portal vein is normal in calibre and course.

SPLEEN: The spleen is normal in size and shape. Its echotexture is homogeneous. No evidence of focal lesion is noted.

PANCREAS: The pancreas is normal in size, shape, contours and echotexture. No evidence of solid or cystic mass lesion is noted.

KIDNEYS: Both kidneys have normal cortical echotexture and have smooth margins. Cortico-medullary differentiation is maintained.
Right kidney measures ~9.7x4.4 cms. No calculus or hydronephrosis seen in right kidney.

Left kidney measures ~ 9.2x4.0cms. No calculus or hydronephrosis seen in left kidney.

URINARY BLADDER: The urinary bladder is well distended. It shows uniformly thin walls and sharp mucosa. No intra-luminal calculus or diverticulum is seen.

PROSTATE: The prostate is normal in size and measures ~ 17cc in volume. No focal lesion seen.
No free fluid is seen in the peritoneal cavity at the time of examination.

PROVISIONAL IMPRESSION :

- **No significant abnormality detected.**

ADVISED: Clinical correlation.

DR. KASHINATH SARKAR
REG NO-C G M C 3357/2011
MBBS
DEPARTMENT - RADIOLOGYA

DR.KASHINATH SARKAR
MBBS, MD RADIODIAGNOSIS

RIMS Rural Health & Training Center (RH&TC) Industrial Corporation Building, Near Axis Bank, Urla, Dist.-Raipur, Pin – 492003, Contact Number – 91091-90902

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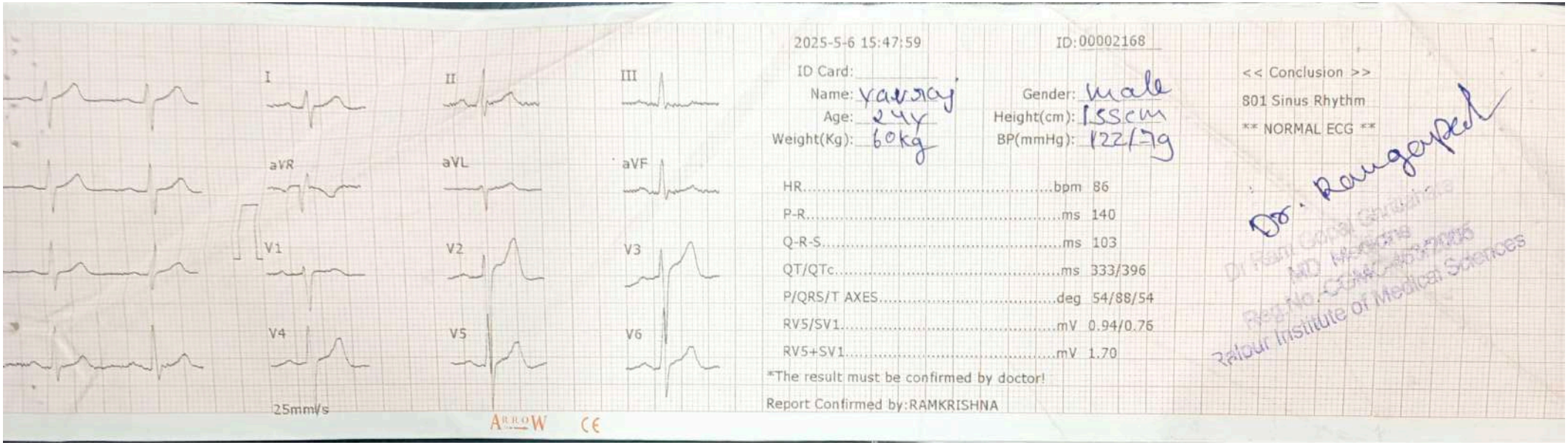

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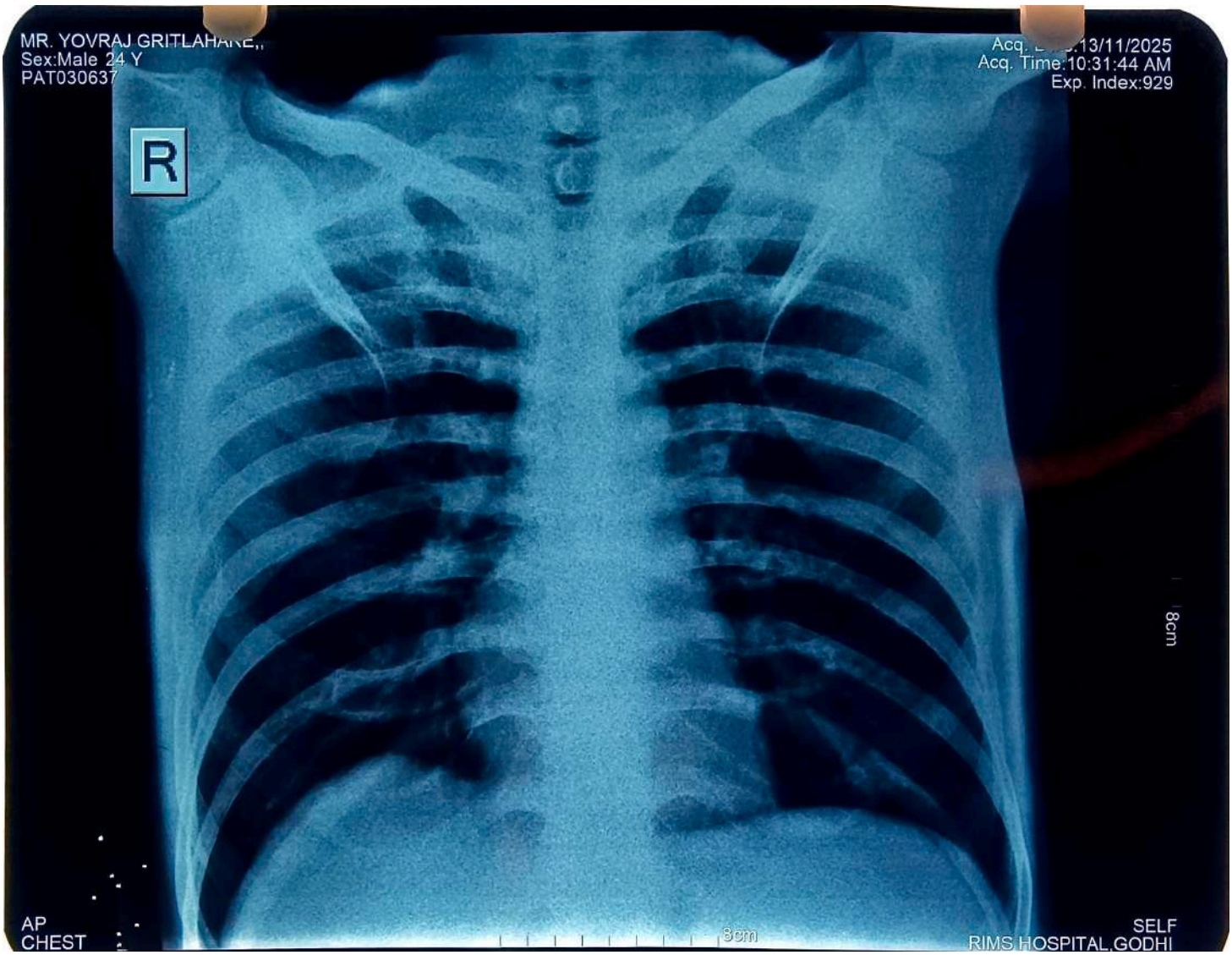

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ok
8/10/25

Form 21
[Prescribed under Rule (19)]
Health Register

(In respect of persons employed in occupations declared to be dangerous operationsunder Section 87)

Name of Worker…….DILIP .....Age/ Sex…46Y/M……
Name of Company…..ALOK FERROW ALLOYS LTD.....Employee Code…. … 1094……
Nature of occupatioN…..TAPPING..... .....Date……05/05/25…… Annexure

PRE-EMPLOYMENT & PERIODIC MEDICAL EXAMINATION

(1) GENERAL EXAMINATION:

Height ..160… cm, Weight …58 kg BMI…22.7 Chest
Inspiration….85….cm, Expiration …80… cm
Throat...NORMAL.... Tongue……MOIST…Tonsils…N/A……
Teeth ..NORMAL..... Gums……NORMAL……
Thyroid……NORMAL……
Lymph nodes……NORMAL…… ……
Additional finding.....N/A.....

(2) CARDIO-VASCULAR SYSTEM:

Pulse… 87… mt. Regular/Irregular Peripheral Pulse-felt/not felt
BP….122/74…. min Hg Heart Sound: NORMAL.....
Murmur, If any...NO..... Additional finding (s), if any .....NO.....

(3) RESPIRATORY SYSTEM:

Shape of Chest: .....**NORMAL**.... Tubular…… Chest movements: …. **Symmetrical**
…… Trachea..... **Centrally**…… Breath sound **Vesicular**

(4) GASTRO-INTESTINAL SYSTEM:

Liver.....NP…… Spleen.....NP……
Any abdominal lumps: NO

(5) EXAMINATION OF EYES:

External Exam -NORMAL... Squint: ..... NO.....
Nystagmus: …… NO .....Fundus L/R
Night Blindness.....NO……
Colour vision- Normal
Individual colour identification- Normal

Distance vision (without glasses) Right….6/6... Left
…6/…… (with glasses) Right……. Left ……

Near-vision (without glasse)Right…N/6….Left…N/6…

(with glasses) Right … ….. Left……

(6) EXAMINATION OF EAR NOSE & THROAT:

External Examination: .....**NAD**……

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(7) GENITO URINARY SYSTEM:

Hernia - NO…… Hydrocele- NO Varicocele - NO
Cryptorchidism-NO Phimosis.....NO Varicose veins- NO
Signs of STD.....NO ……

Other Examinations for Females:
Menarche…… yr. G. Para……Menstrual irregularity..... if any

INVESTIGATIONS
(8) Lab Investigations:

Haemogram
Blood Group....A... Rh factor.....POSITIVE..... HB……13.3 gm%
RBC .....4.71.....Platelet Count.....167
TLC.....5.30..... DLC: - N-49.7.4-42.5.E-2.3.M-4.4.B-0.06

Renal profile
Blood Urea: …36… S. Creatinine:…..0.69

Hepatic profile - S G O T…17... S G P T …20…. Alkaline Phosphat ….57…..S. Bilirubin …0.78

Lipid Profile:
Serum Cholesterol .....156....Triglycerides.....149.....HDL....36.4.....LDL.....90.....

Metabolic
Blood Sugar.....115.....Blood Sugar PP/2Q.S. Uric Acid…..5.8

Urine: Albumin....NIL.....**Sugar** ....NIL.....**Microscopy**.....
Stool: .....

(10) Other Investigation

11) Pulmonary Function Test

	FCV	FEV 1	FEV 1/ FVC
PREDICATED	3.91	3.32	80.55
MEASURED	3.78	2.42	64.02
% OF PREDICATED	96.58	72.96	79.48

12) Audiometry examination

PTA	**Lt. Ear -16dB**	**Rt. Ear-20 dB**
Remark	**NORMAL**	

PTA of both ears at frequency ..... Cycles/sec

13. Details of Other specific medical examination carried out as mentioned in the respective schedules of 107 of C.G. Factory rules 1962-

For, Alok Ferro Alloys Ltd.
Factory Medical Officer
Dr. Raju Kumar Manhare
(MBBS & AFIH)
Reg. No. - C.G.M.C. 71111/2017

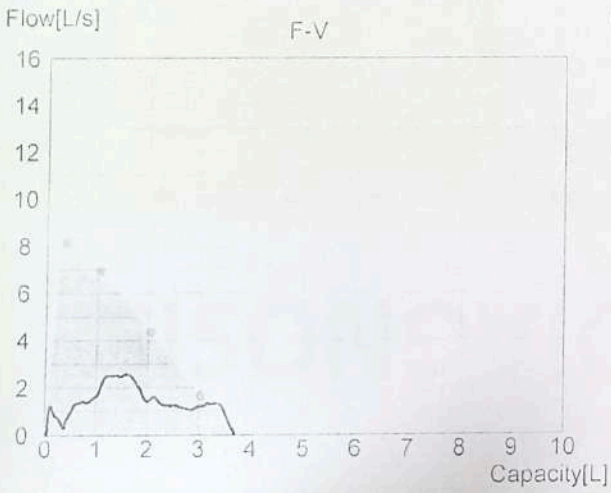
Signature (with date) of Factory Medical Officer

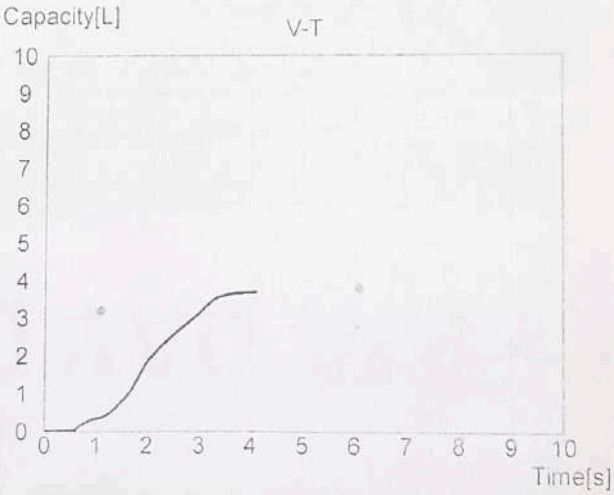
Signature (with date)
Certifying surgeon

Created in Photo-to-PDF One Click Converter. Download here: https://firehawk.ai/phototopdf/

Case number:
Name:MR DILIP
Gender:Male Age:37 Height:160 cm Weight:58 kg
Smoke:Yes BDT:No Equation:ECSC Phone:
Test date:2025-05-05 17:43:48
Medical history:

Parameter	Unit	MEAS	PRED	PRED%	LLN	BDT diff	BDT rate
FVC	L	3.78	3.91	96.58%	2.91	-	-
FEV1	L	2.42	3.32	72.96%	2.48	-	-
FEV1/FVC	%	64.02	80.55	79.48%	68.76	-	-
PEF	L/s	2.78	8.38	33.16%	6.39	-	-
FEF2575	L/s	1.74	4.21	41.30%	2.50	-	-
FEF25	L/s	1.60	7.19	22.24%	4.38	-	-
FEF50	L/s	2.03	4.57	44.45%	2.40	-	-
FEF75	L/s	1.15	1.87	61.37%	0.59	-	-
EV	ml	500.00(13.23%FVC)	-	-	-	-	-
FET	s	4.14	6.00	69.00%	-	-	-
EOTV	ml	397.00	-	-	-	-	-
PEFT	ms	1894.00	-	-	-	-	-





Test result: Spirometry all the parameters were normal

DR. KAMBLEY RAMU WATUJI
REG NO-MC-7823/2018
MBBS, MD
DEPARTMENT-CHEST & PULMONARY

Operator: Physician:

Reporting date: 2025-04-30

Device ID: PULMO022489

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

Bhansoj Road, Off. NH-6, Gram-Godhi, Raipur (C.G.)
Tel.: 91-0771-3053060-87, Fax : 91-0771-3053088-89, www.rimsindia.ac.in
Department of ENT

Health For All

AUDIOLOGICAL EVALUATION

OPD No. ..... Date 05/05/25 ..... Audio No. .....

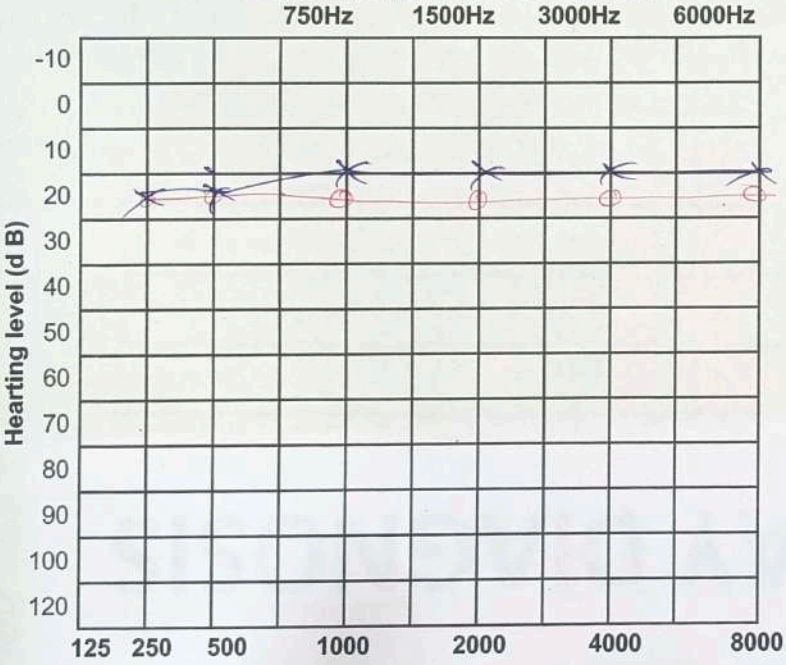
Name Mr. Dilip ..... Age / Sex 37 Y/M ...

Address ..... Ph. No. 7415344593

Tested by ..... Audiometer Used ..... Per/Post Treatment .....

Complaint :-

PURE TONE AUDIOGRAM



KEY OF SYMBOLS

Right	Air Conditions	Left
	Unmasked Three Hold Masked Three Should	
No Responce		
	Unmasked Three Hold Masked Three Should	
Bone Conducts		
	Unmasked Three Hold Masked Three Should	
No Responce		
	Unmasked Three Hold Masked Three Should	
Sound Field		
Response	S	
No Response	S	
Audio Metric		

TEST / EAR	RINNE T.F.T.	WEBER T.F.T.	AUDIOMETRIC WEBER		
			500	1000	2000
RT.					
LT.					

SPEECH AUDIOMETRY

	PTA (db HL)	SRT (db HL)	SDT (db HL)	SDS %	MCL	UCL
RIGHT EAR	20dB					
LEFT EAR	16dB					

TEST CONDITION

PROVISTIONAL DIAGNOSIS :

Right Ear :- Mild hearing loss

Left Ear :- Mild hearing loss

Recommendation :-

DR. Nite Nitinwre

DR. NITINWRE ASHOK ZADBAJI
REG NO-54603
MBBS ENT
DEPARTMENT - ENT

AUDIOLOGIST

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DEPARTMENT OF BIOCHEMISTRY

PATIENT NAME	MR DILIP	AGE/SEX	37Y/M
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD		SAMPLE RECEIVING DATE	05/05/2025
SPECIMEN	BLOOD	REPORT RELEASING DATE	05 /05/2025

BLOOD SUGAR FASTING & PP

INVESTIGATION	RESULT	REFERENCE RANGE
Sample Type		
FASTING BLOOD SUGAR	79	70-100 mg/dL
BLOOD SUGAR PP	120	100-140 mg/dL

Clinical Note :
Elevated glucose levels (hyperglycernia) are the most aften encounterd clinical in the setting of diabetes mellitus but they may also occur with pancreatic neoplasms , hyperthyroisism and adrenocortical dysfunction. Decreased glucose levels (hypoglycemia) may result from endogenous or exogenous insulin excess,prolonged starvation,or liver desease

Fasting glucose	2 hours pp glucose	Diagnosis
<100	<140	Normal
100 to 125	140 to 199	Pre diabetes
>126	>200	Diabetes

A level of 126 mg/dL or above , confirmed by repeating the test on another day , means a person has diabetes IGT (2 hrs post meal),means a personhas an increased risk of developing type 2 diabetes but does not have it yet a 2 hour glucose level of 200 mg/dL or above ,confirmed by repeating the test on another day ,means a person has diabetes

-----End of report -----

Technician
Reports checked by

Consultant
clinical biochemistry labortory

NOTE: These reports are for assisting doctors in their treatment and not for medico-legal purposes and should be correlated clinically

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RAIPUR INSTITUTE OF MEDICAL SCIENCE

24 Hour Helpline

Bhansoj Road Off NH -6, Raipur 0771 - 3053060

PATIENT NAME	DILIP	AGE/SEX	37Y/MALE
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD	URLA PATIENT	SAMPLE RECEIVING DATE	05-05-2025
SPECIMEN	SERUM	REPORT RELEASING DATE	06-05-2025

BIOCHEMISTRY REPORT

LIPID PROFILE-

Test Name	Observed Value	Reference Range
Total Cholesterol	156	Desirable <200 mg/dL Borderline High 200- 239 mg/dL High Risk >239 mg/dL
Triglycerides	149	Optimal <150 mg/dL Borderline High 150-199 mg/dL High 200-499 mg/dL Very high > 500 mg/dL
HDL Cholesterol	36.4	Male: 35-79.5 mg/dL, Female: 42-88 mg/dL
LDL Cholesterol	90	Optimal <100 mg/Dl Above Optimal 100-129 mg/Dl Borderline High 130-159 mg/Dl High 160-189 mg/Dl Very High >190 mg/Dl
Very Low Density Lipoproteins (VLDL)	29	20-40 mg/Dl
CHOL/HDL Ratio	4.2	3.3-4.4
LDL/HDL Ratio	2.4	0.5-3.0

Test done on random sample. kindly correlate clinically...!!

RAIPUR INSTITUTE OF MEDICAL SCIENCE RIMS

Technician
(Reports Checked By)

Consultant
Clinical biochemistry laboratory

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

Bhansoj Road Off NH -6, Raipur 0771 - 3053060

24 Hour Helpline

PATIENT NAME	DIPIL	AGE/SEX	37Y/MALE
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD		SAMPLE RECEIVING DATE	05-05-2025
SPECIMEN	SERUM	REPORT RELEASING DATE	05-05-2025

BIOCHEMISTRY REPORT

LIVER FUNCTION TEST

Test Name	Observed Value	Reference Range
Bilirubin Total	0.78	Upto 1.2 mg/dl
Bilirubin Direct	0.34	Upto 0.4 mg/dL
Bilirubin Indirect	0.44	0.2-0.8 mg/dL
S.G.O.T. (AST)	17	M:Upto 35 & F:Upto 31 IU/L
S.G.P.T. (ALT)	20	M:Upto 45 & F:Upto 34 IU/L
Alkaline Phosphatase	57	53-128 IU/L
S. LDH		2-12yrs: 180-360 & 12-60 yrs: 125-220 IU/L

SERUM PROTEINS

Total Protein		6.0-8.0 g/dL
Serum Albumin		3.5-5.5 g/dL
Serum Globulin		2.5-3.5.g/dL
A:G Ratio		1.2-1.5:1

RENAL FUNCTION TEST

B.Urea	36	15-40 mg/dL
S.Creatinine	0.69	F: 0.6-1.2 & M: 0.7-1.4 mg/dL
Uric Acid	5.8	F: 2.6-6.0 & M: 3.5-7.2 mg/dL

Calcium		9.0-11.0 mg/dL
Phosphorus		2.5-4.5 mg/dL
Magnesium		1.8-2.2 mg/dl

PANCREATIC FUNCTION TEST

S. Lipase		Upto 60 U/L
S. Amylase		Upto 80 U/L

BLOOD GLUCOSE

Blood Glucose, Random	115	70-140 mg/dL
Blood Glucose, Fasting		70-100 mg/dL
Blood Glucose, Post-Prandial		100-140 mg/dL

SERUM ELECTROLYTES

S. Sodium (Na+)		135-145 mmol/L
S. Potassium (K+)		3.5-5.0 mmol/L
S. Ca++		1.3-1.5 mmol/L
Iron		ug/dl

Kindly correlate clinically...!!s

Technician
(Reports Checked By)

RAIPUR INSTITUTE OF MEDICAL SCIENCES RIMS

Consultant
Clinical biochemistry laboratory

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

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DEPARTMENT OF MICROBIOLOGY

Patient`s Name	DILIP	**Age /Sex**	37Y/MALE
Lab No		**PATIENT ID**	
Ref by Dr.	RIMS	**OPD /IPD:**	
Ward	CAMP	**Sample Receiving Date**	05/05/2025
Specimen	Serum	**Report Releasing Date**	06/05/2025

SEROLOGILCAL TEST REPORT

S. No.	TEST	METHOD	RESULT
31.	ASO Titer	Latex Agglutination Test	
2.	CRP	Quantative Test	
3.	RA Factor	Latex Agglutination Test	
4	Dengue Test	Rapid Card Test	
5.	Widal Test	Slide Agglutination Test	
6.	Direct Coombs Test	Agglutination Test	
7.	In-direct Coombs Test	Agglutination Test	
8.	VDRL Antigen Test	Rapid Card Test	
9.	HbsAg	Rapid Card Test	NON-REACTIVE
10.	Anti-HCV	Rapid Card Test	
11.	HIV 1 &2	Rapid Card Test	

Please Note:-Kindly correlate clincally.

TECH. SINGH

MICROBIOLOGIST

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

24 Hour Helpline, Health For All 0771 – 3268844,
Bhansoj Road, Off NH -6, Raipur

PATIENT NAME	DILIP	AGE/SEX	37Y/MALE
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD		SAMPLE RECEIVING DATE	05/05/2025
SPECIMEN	BLOOD	REPORT RELEASING DATE	06/05/2025

HAEMATOLOGY REPORT

TEST NAME	OBSERVED VALUE	NORMAL VALUE
BLOOD GROUP & RH	"A" POSITIVE	(Slides Method)

RAIPUR INSTITUTE OF MEDICAL SCIENCES RIMS

CHECKED BY

ASSITANT PROFESSOR

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

Teaching Hospital and Medical College

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

Bhansoj Road Off NH-06 Village Godhi,
Raipur (C.G.), 492101,India

Tel: 1800-208-1088 ,Email - info@rimsindia.ac.in , http://rimsindia.ac.in

DEPARTMENT OF PATHOLOGY
HAEMATOLOGY REPORT

C.R. No.	: 050525113/	Lab No	: 20250505680	Collected :	: 06-05-2025
Name	: MR. DILIP	Age/Sex	: 37 Year / M	Received	: 06-05-2025
Guardian	: S/O MR			Reported	: 06-05-2025
Department	: General Medicine	DR. NITIN SHARMA			/

Tests	Result	Units	Ref. Interval
CBC(Complete Haemogram)			
HB (Hemoglobin) SLS	13.3	gm/dl	13.0 - 17.0
TLC (Total Leucocytes Count) Electrical Impedance/ Flow Cytometry	5.30	10^3/µL	3.5 - 10
DLC (Differential Leucocytes Count) Flow Cytometry	-		-
Neutrophils Flow Cytometry/DC Detection	49.7	%	40 - 75
Lymphocytes Flow Cytometry/DC Detection	**42.5 H**	%	20 - 40
Eosinophils Flow Cytometry/DC Detection	2.3	%	01 - 06
Monocytes Flow Cytometry/DC Detection	4.4	%	02 - 10
Basophils Flow Cytometry/DC Detection	0.06	%	00 - 01
MCV Calculated	86.5	fl	80 - 100
MCHC Calculated	32.6	g/dl	31 - 37
RDW-CV Hydro Dynamic Focussing / DC Detection	**14.3 H**	%	11.6 - 14.0
Platelet Count Hydro Dynamic Focussing / DC Detection	167	10^3/µL	150 - 400
HCT Flow Cytometry/DC Detection	40.7	%	40 - 51
MCH Calculated	28.2	pg	26 - 34
RBC Count Hydro Dynamic Focussing / DC Detection	4.71	million/mm3	4.0 - 5.2

Technician

RAIPUR INSTITUTE OF MEDICAL SCIENCES RIMS

Pathologist

--- END OF REPORT --

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Bhansoj Road Off NH-06 Village Godhi,
Raipur (C.G.), 492101,India
Tel: 1800-208-1088 ,Email - info@rimsindia.ac.in

DEPARTMENT OF PATHOLOGY

URINE REPORT

C.R. No.	: 0505251137 /	Lab No	: 20250505680	Collected	: 06-05-2025
Name	: MR. DILIP	Age/Sex	: 37 Year / M	Received	: 06-05-2025
Guardian	: S/O MR			Reported	: 06-05-2025
Department	: General Medicine				

Tests		Result
Physical Examination		
Color		Pale Yellow
Volume		20
Appearance		Clear
Chemical Examination		
Albumin		NIL
Sugar		NIL
Ketone		-
Microscopic Examination		
Pus Cells	0 - 5	2-3
Epithelial Cells	0 - 5	2-3
RBC		Absent
Crystals		Absent
Bacteria		Absent
Cast		-
Others		-

********** End of Report **********

RAIPUR INSTITUTE OF MEDICAL SCIENCES RIMS

Technician

Print Date : 6/5/2025

for

Consultant Patholgist

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DEPARTMENT OF BIOCHEMISTRY

PATIENT NAME	DILIP	AGE/SEX	37Y/M
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD		SAMPLE RECEIVING DATE	5/5/2025
SPECIMEN	BLOOD	REPORT RELEASING DATE	6/5/2025

MANGANESE , BLOOD

INVESTIGATION	RESULT	REFERENCE VALUE	UNIT
Sample Type	Blood(2ml)	**TAT** : 24 Hrs (Normal : 24-48 Hrs)	
Manganese KPM	13.16	NORMAL 4 .20-16.50	ug/l

Note :

1. Blood manganese levels exceeding 20 micrograms per liter (ug/l) suggest manganese retention.
2. Inductively coupled plasma mass spectrometry (ICPMS) is a technique employed to quantify heavy and trace metals in biological tissues.
3. To evaluate occupational exposure , samples should be collected at the end of a work shift on the last day of the workweek.

Comments :

Manganes is an essential element that acts as a co-factor in numerous enzymatic reactions.it is primarily obtained through dietary sources , including foods , vegetables , the germinal parts of grains , fruits , nuts , tea and certain spices . Manganese is also utilizes in various industrial processes , such as the production of steel alloys , dry cell batteries , electrical coils , ceramics , matches , glass tiles , welding rods , animal food additives , and fertilizers . Workers exposed to high levels of manganese dust in industrial settings face a significantly increased risk of respiratory diseases , up to 30 times more than the general population.

Manganese exposure can lead to abnormal electrocardiograms and hinder myocardial contraction.

High Levels :

- Acute hepatitis
- Industrial exposure
- Myocardial infarction

Low Levels ;

- Seizurs
- Phenylketonuria

Technician
(Reports checked by

consultant
clinical biochemistry labortory

NOTE-These reports are for assisting doctors in their treatment and not for medico-legal purposes and should be correlated clinically

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RIMS HOSPITAL URLA

(A unit of LORD BUDDHA EDUCATIONAL SOCIETY)

Health For All

PT. NAME : MR.DILIP
PATIENT ID : RIMS/
REF. DR. / DEPT :

AGE / SEX: 37Y / M
DATE: 2025

SONOGRAPHY OF WHOLE ABDOMEN

LIVER: The liver is normal in size, shape and has smooth margins. It is uniformly isoechoeic with normal echotexture. No SOL is seen. Intra-hepatic biliary radicals are not dilated.

GALL BLADDER: The gall bladder is well distended. No intra-luminal calculi or mass lesion is seen. Its wall thickness is normal.

COMMON BILE DUCT & PORTAL VEIN: The common bile duct is normal in caliber. No calculi are seen in it. The portal vein is normal in calibre and course.

SPLEEN: The spleen is normal in size and shape. Its echotexture is homogeneous. No evidence of focal lesion is noted.

PANCREAS: The pancreas is normal in size, shape, contours and echotexture. No evidence of solid or cystic mass lesion is noted.

KIDNEYS: Both kidneys have normal cortical echotexture and have smooth margins. Cortico-medullary differentiation is maintained.
Right kidney measures ~8.2x4.6 cms. No calculus or hydronephrosis seen in right kidney.

Left kidney measures ~ 9.2x4.3 cms. No calculus or hydronephrosis seen in left kidney.

URINARY BLADDER: The urinary bladder is well distended. It shows uniformly thin walls and sharp mucosa. No intra-luminal calculus or diverticulum is seen.

PROSTATE: The prostate is normal in size and measures ~ 8cc in volume. No focal lesion seen.
No free fluid is seen in the peritoneal cavity at the time of examination.

PROVISIONAL IMPRESSION :

- **No significant abnormality detected.**

ADVISED: Clinical correlation.

Dr. Kashinath

DR. KASHI NATH SARKAR
REG NO-C.G M C 3357/2011
MBBS
DEPARTMENT - RADIOLOGYA

Dr. KASHI NATH SARKAR
MBBS, RADIODIAGNOSIS

RIMS Rural Health & Training Center (RH&TC) Industrial Corporation Building, Near Axis Bank, Urla, Dist.-Raipur, Pin – 492003, Contact Number – 91091-90902

Medical College (Main Campus) – Raipur Institute Of Medical Sciences (750 Beded Hospital & Medical College) at Bhansoj Road . Off, NH-06, Village-Godhi, Raipur (C.G.), Mob. No.-9109190914, 9303081217 Fax : 0771-3053089, www.rimsindia.ac.in

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RIMS HOSPITAL URLA

(A unit of LORD BUDDHA EDUCATIONAL SOCIETY)

Health For All

PT. NAME : MR.DILIP
PATIENT ID : RIMS/
REF. DR. / DEPT : RIMS HOSPITAL, URLA (OPD)

AGE / SEX: 37Y / M
DATE:06-05- 2025

X RAY CHEST (PA VIEW)

- Trachea is central.
- Lung fields are clear bilaterally.
- No evidence of consolidation, collapse, or effusion.
- Cardiac silhouette is normal in size and contour.
- Mediastinal contours are normal.
- Diaphragmatic domes are normal in position and outline.
- Costophrenic angles are sharp.
- Bony thorax appears intact, no fractures seen.

DR. KASHI NATH SARKAR
REG NO-C.G.M.C 3357/2011
MBBS
DEPARTMENT - RADIOLOGYA

ADVISED: Clinical correlation.

RESIDENT DOCTOR

RIMS Rural Health & Training Center (RH&TC) Industrial Corporation Building, Near Axis Bank, Urla, Dist.-Raipur, Pin – 492003, Contact Number – 91091-90902

Medical College (Main Campus) – Raipur Institute Of Medical Sciences (750 Beded Hospital & Medical College) at Bhansoj Road . Off, NH-06, Village-Godhi, Raipur (C.G.), Mob. No.-9109190914, 9303081217 Fax : 0771-3053089, www.rimsindia.ac.in

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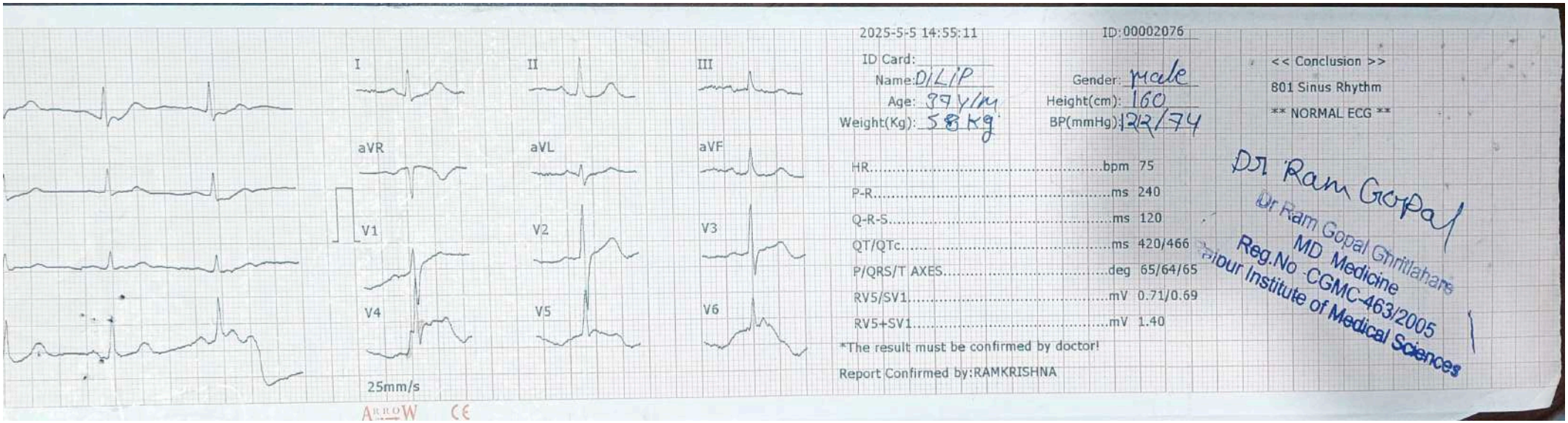

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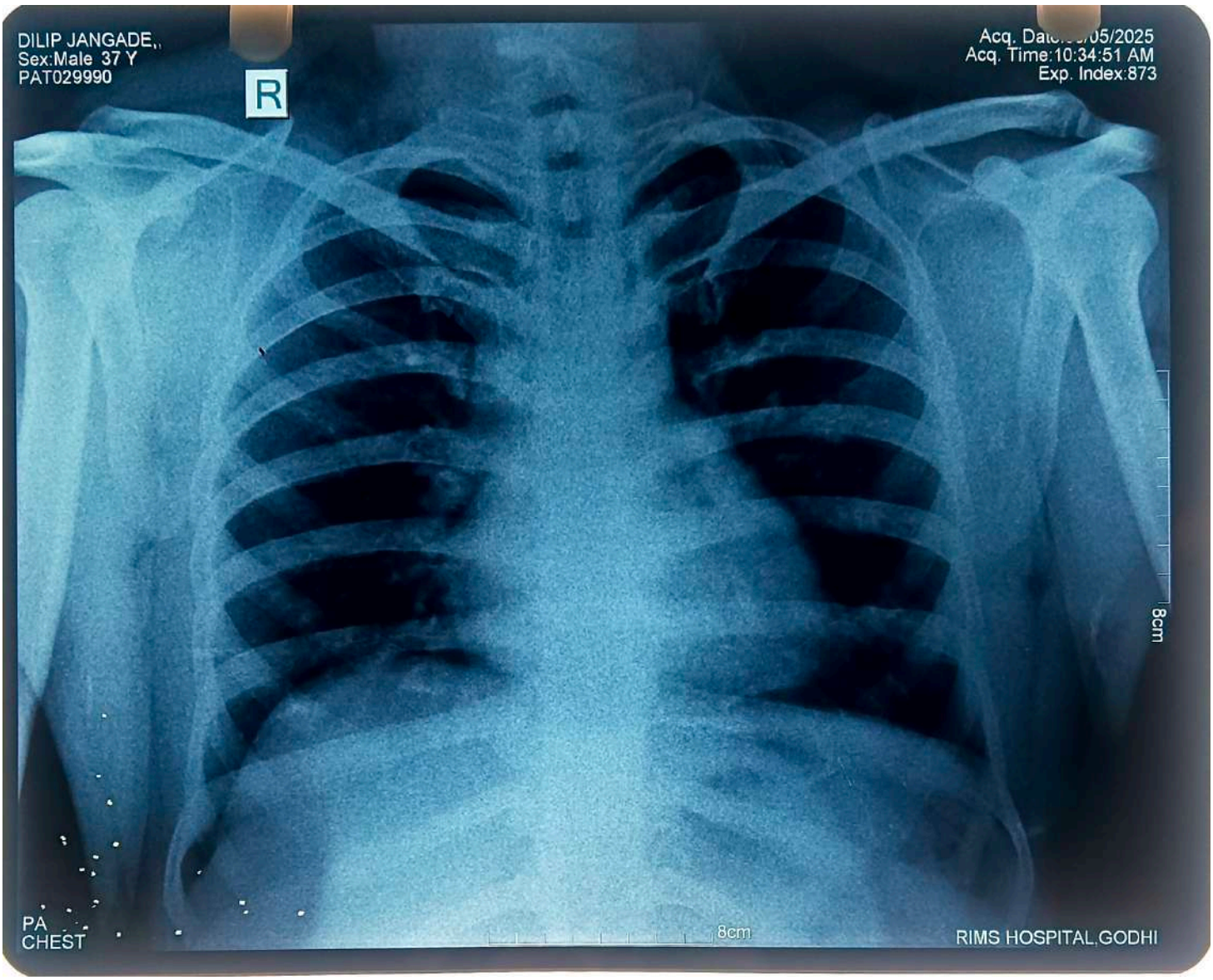

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Form 21
[Prescribed under Rule (19)]
Health Register

(In respect of persons employed in occupations declared to be dangerous operationsunder Section 87)

Name of Worker……SURESH PATLE .....Age/ Sex……55Y/M……
Name of Company……..ALOK FERROW ALLOYS LTD.....Employee Code…. ……
Nature of occupatioN…....CLEAN.....Date……24/05/25…… Annexure

PRE-EMPLOYMENT & PERIODIC MEDICAL EXAMINATION

(1) GENERAL EXAMINATION:

Height 166cm, Weight 90 kg BMI… 32.7 Chest
Inspiration..108….cm, Expiration 104 cm
Throat...NORMAL.... Tongue……MOIST…Tonsils…N/A……
Teeth ..NORMAL..... Gums……NORMAL……
Thyroid……NORMAL……
Lymph nodes……NORMAL……
Additional finding.....N/A.....

(2) CARDIO-VASCULAR SYSTEM:

Pulse 72 mt. Regular/Irregular Peripheral Pulse-felt/not felt
BP.120/80……. min Hg Heart Sound: NORMAL.....
Murmur, If any...NO..... Additional finding (s), if any .....NO.....

(3) RESPIRATORY SYSTEM:

Shape of Chest: .....**NORMAL**.... Tubular…… Chest movements: …. **Symmetrical**
…… Trachea..... **Centrally**…… Breath sound **Vesicular**

(4) GASTRO-INTESTINAL SYSTEM:

Liver.....NP…… Spleen.....NP……
Any abdominal lumps: NO

(5) EXAMINATION OF EYES:

External Exam -NORMAL... Squint: ..... NO.....
Nystagmus: …… NO .....Fundus L/R
Night Blindness.....NO……
Colour vision- Normal
Individual colour identification- Normal

Distance vision (without glasses) Right..6/6.... Left
…6/6…… (with glasses) Right…… Left
……

Near-vision (without glasses) Right…N/6……
Left…N/6…… (with glasses) Right … ….. Left……

(6) EXAMINATION OF EAR NOSE & THROAT:

External Examination: .....**NAD**……

realme Shot on realme X7 5G
2025.12.19 14:21

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(7) GENITO URINARY SYSTEM:

Hernia - NO…… Hydrocele- NO Varicocele - NO
Cryptorchidism-NO Phimosis.....NO Varicose veins- NO
Signs of STD.....NO ……

Other Examinations for Females:
Menarche…… yr. G. Para……Menstrual irregularity..... if any

INVESTIGATIONS
(8) Lab Investigations:

Haemogram
Blood Group.....A+..... Rh factor.....POSITIVE..... Hb 13.8 gm%
RBC .....5.53.....Platelet Count.....187

TLC.....6.55..... DLC: - .....

N-47.7, L-35.1, E-09, M-7.5 B-0.7.

Renal profile
Blood Urea: …16… S. Creatinine:0.50

Hepatic profile - S G O T…19. S G P T …24. Alkaline Phosphat 99…S. Bilirubin …1.21

Lipid Profile:
Serum Cholesterol .....174.....Triglycerides.....161.....HDL....42.....LDL.....100....

Metabolic
Blood Sugar.....112.....Blood Sugar PP 124 S. Uric Acid….2.5

Urine: Albumin....NIL.....**Sugar** ....NIL.....**Microscopy**.....
Stool: .....

(10) Other Investigation

11) Pulmonary Function Test

	FCV	FEV 1	FEV 1/ FVC
PREDICATED	3.79	3.05	77.31
MEASURED	3.08	2.48	80.52
% OF PREDICATED	81.23	81.23	104.15

12) Audiometry examination

PTA	**Lt. Ear -21dB**	**Rt. Ear-20 dB**
Remark	**NORMAL**	

PTA of both ears at frequency ..... Cycles/sec

13. Details of Other specific medical examination carried out as mentioned in the respective schedules of 107 of C.G. Factory rules 1962-

For, Alok Textiles Ltd.

Factory Medical Officer
Dr. Raju Kumar Manhare
(MBBS & AFIH)
Reg. No. : C.G.M.C. 7111/2017

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Case number:

Name:MR SURESH PATLE

Gender:Male Age:55

Height:166 cm Weight:90 kg

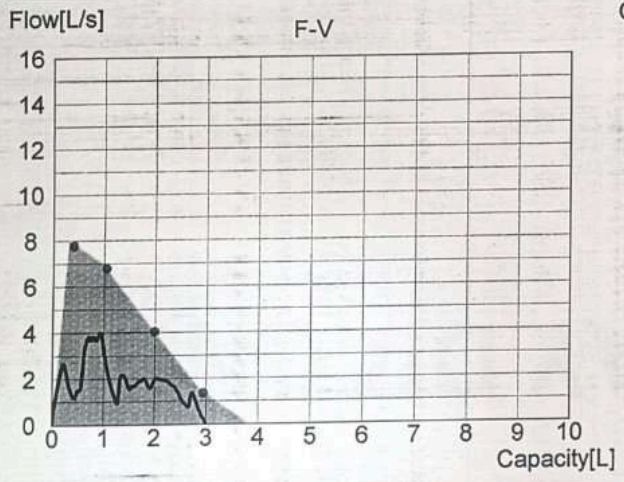
Smoke:No BDT:No

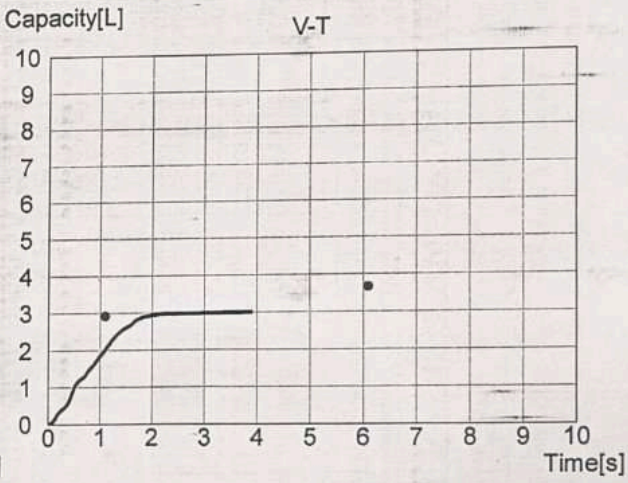
Equation:ECSC Phone:

Test date:2025-05-24 18:21:49

Medical history:

Parameter	Unit	MEAS	PRED	PRED%	LLN	BDT diff	BDT rate
FVC	L	3.08	3.79	81.23%	2.79	-	-
FEV1	L	2.48	3.05	81.23%	2.21	-	-
FEV1/FVC	%	80.52	77.31	104.15%	65.52	-	-
PEF	L/s	4.33	7.98	54.28%	5.99	-	-
FEF2575	L/s	2.00	3.56	56.25%	1.84	-	-
FEF25	L/s	3.81	7.00	54.44%	4.19	-	-
FEF50	L/s	1.60	4.24	37.77%	2.07	-	-
FEF75	L/s	1.93	1.56	123.51%	0.28	-	-
EV	ml	398.00(12.92%FVC)	-	-	-	-	-
FET	s	3.92	6.00	65.33%	-	-	-
EOTV	ml	25.00	-	-	-	-	-
PEFT	ms	489.00	-	-	-	-	-





Test result: spirometry all the Parameters are Normal

Kambley

DR. KAMBLEY RAMU WATUJI
REG NO-MC-7523/2018
MBBS, MD
DEPARTMENT-CHEST & PULMONARY

Operator:

Physician:

Reporting date: 2025-05-22

Device ID: PULMO022489

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

Bhansoj Road, Off. NH-6, Gram-Godhi, Raipur (C.G.)
Tel.: 91-0771-3053060-87, Fax : 91-0771-3053088-89, www.rimsindia.ac.in
Department of ENT

AUDIOLOGICAL EVALUATION

OPD No. ..... Date ..... Audio No. .....

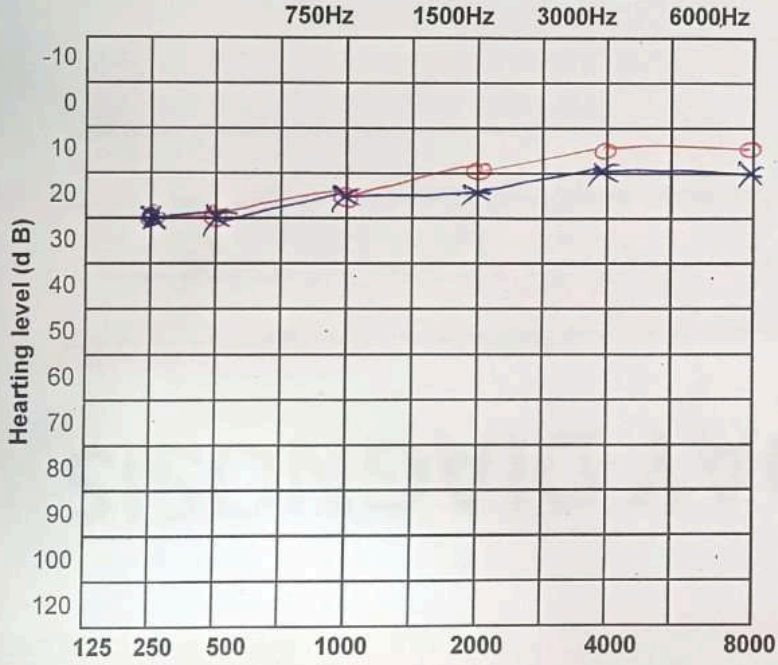
Name Mr. Suresh Patle Age / Sex 35Y / M

Address ..... Ph. No. .....

Tested by ..... Audiometer Used ..... Per/Post Treatment .....

Complaint :-

PURE TONE AUDIOGRAM



KEY OF SYMBOLS

Right	Air Conditions	Left
	Unmasked Three Hold Masked Three Should	
No Responce		
	Unmasked Three Hold Masked Three Should	
Bone Conducts		
	Unmasked Three Hold Masked Three Should	
No Responce		
	Unmasked Three Hold Masked Three Should	
Sound Field		
Response	S	
No Response	S	
Audio Metric		

TEST / EAR	RINNE T.F.T.	WEBER T.F.T.	AUDIOMETRIC WEBER		
			500	1000	2000
RT.					
LT.					

SPEECH AUDIOMETRY

	PTA (db HL)	SRT (db HL)	SDT (db HL)	SDS %	MCL	UCL
RIGHT EAR	20 dB					
LEFT EAR	21 dB					

TEST CONDITION

PROVISTIONAL DIAGNOSIS :

Right Ear :- Normal hearing sensitivity

Left Ear :- Normal hearing sensitivity

DR. NITINWRE ASHOK ZADBAN
REG NO-54603
MBBS ENT
DEPARTMENT - ENT

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

24 Hour Helpline, Health For All 0771 – 3268844,

PATIENT NAME	SURESH PATLE	AGE/SEX	55Y/MALE
LAB N		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD	CAMP	SAMPLE RECEIVING DATE	24-05-2025
SPECIMEN	URINE	REPORT RELEASING DATE	24-05-2025

PHYSICAL EXAMINATION

VOLUME	:	20 ML
COLOUR	:	PALE YELLOW
APPEARANCE	:	CLEAR

CHEMICAL EXAMINATION

ALBUMIN	:	NIL
SUGAR	:	PRESENT++++

MICROSCOPIC EXAMINATION

PUS CELLS	:	1-2/HPF
EPITHELIAL CELL	:	1-2/HPF
CRYSTAL	:	ABSENT
BACTERIA		ABSENT
CAST	:	ABSENT
OTHERS	:	ABSENT

CHECKED BY

ASSITANT PROFESSOR

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

Teaching Hospital and Medical College

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RAIPUR INSTITUTE OF MEDICAL SCIENCE

24 Hour Helpline

Bhansoj Road Off NH -6, Raipur 0771 - 3053060

PATIENT NAME	SURESH PATLE	AGE/SEX	55Y/MALE
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD	CAMP	SAMPLE RECEIVING DATE	24-05-2025
SPECIMEN	SERUM	REPORT RELEASING DATE	25-05-2025

BIOCHEMISTRY REPORT

LIPID PROFILE-

Test Name	Observed Value	Reference Range
Total Cholesterol	174	Desirable <200 mg/dL Borderline High 200- 239 mg/dL High Risk >239 mg/dL
Triglycerides	161	Optimal <150 mg/dL Borderline High 150-199 mg/dL High 200-499 mg/dL Very high > 500 mg/dL
HDL Cholesterol	42	Male: 35-79.5 mg/dL, Female: 42-88 mg/dL
LDL Cholesterol	100	Optimal <100 mg/Dl Above Optimal 100-129 mg/Dl Borderline High 130-159 mg/Dl High 160-189 mg/Dl Very High >190 mg/Dl
Very Low Density Lipoproteins (VLDL)	32	20-40 mg/Dl
CHOL/HDL Ratio	4.14	3.3-4.4
LDL/HDL Ratio	2.38	0.5-3.0

Test done on random sample. kindly correlate clinically...!!

Technician
(Reports Checked By)

RAIPUR INSTITUTE OF MEDICAL SCIENCES RIMS

Consultant
Clinical biochemistry laboratory

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

24 Hour Helpline, Health For All 0771 – 3268844,
Bhansoj Road, Off NH -6, Raipur

PATIENT NAME	SURESH PATEL	AGE/SEX	55Y/MALE
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD	CAMP	SAMPLE RECEIVING DATE	24/05/2025
SPECIMEN	BLOOD	REPORT RELEASING DATE	24/05/2025

HAEMATOLOGY REPORT

TEST NAME	OBSERVED VALUE	NORMAL VALUE
BLOOD GROUP & RH	"A" POSITIVE	(Slides Method)

CHECKED BY

RAIPUR INSTITUTE OF MEDICAL SCIENCES RIMS

ASSITANT PROFESSOR

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Teaching Hospital and Medical College

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DEPARTMENT OF BIOCHEMISTRY

PATIENT NAME	MR SURESH PATLE	AGE/SEX	55Y/M
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD		SAMPLE RECEIVING DATE	24/05/2025
SPECIMEN	BLOOD	REPORT RELEASING DATE	24/05/2025

BLOOD SUGAR FASTING & PP

INVESTIGATION	RESULT	REFERENCE RANGE
Sample Type		
FASTING BLOOD SUGAR	92	70-100 mg/dL
BLOOD SUGAR PP	124	100-140 mg/dL

Clinical Note :
Elevated glucose levels (hyperglycernia) are the most aften encounterd clinical in the setting of diabetes mellitus but they may also occur with pancreatic neoplasms , hyperthyroisism and adrenocortical dysfunction. Decreased glucose levels (hypoglycemia) may result from endogenous or exogenous insulin excess,prolonged starvation,or liver desease

Fasting glucose	2 hours pp glucose	Diagnosis
<100	<140	Normal
100 to 125	140 to 199	Pre diabetes
>126	>200	Diabetes

A level of 126 mg/dL or above , confirmed by repeating the test on another day , means a person has diabetes IGT (2 hrs post meal),means a personhas an increased risk of developing type 2 diabetes but does not have it yet a 2 hour glucose level of 200 mg/dL or above ,confirmed by repeating the test on another day ,means a person has diabetes

-----End of report -----

RAIPUR INSTITUTE OF MEDICAL SCIENCES RIMS

Technician
(Reports checked by

consultant
clinical biochemistry labortory

NOTE-These reports are for assisting doctors in their treatment and not for medico-legal purposes and should be correlated clinically

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RAIPUR INSTITUTE OF MEDICAL SCIENCES

Bhansoj Road Off NH -6, Raipur 0771 - 3053060

24 Hour Helpline

PATIENT NAME	SURESH PATLE	AGE/SEX	55Y/MALE
LAB NO.		PATIENT ID NO.	
REF BY DR.	RIMS	OPD/IPD NO.	
WARD	CAMP	SAMPLE RECEIVING DATE	24-05-2025
SPECIMEN	SERUM	REPORT RELEASING DATE	25-05-2025

BIOCHEMISTRY REPORT

LIVER FUNCTION TEST

Test Name	Observed Value	Reference Range
Bilirubin Total	1.21	Upto 1.2 mg/dl
Bilirubin Direct	0.39	Upto 0.4 mg/dL
Bilirubin Indirect	0.82	0.2-0.8 mg/dL
S.G.O.T. (AST)	19	M:Upto 35 & F:Upto 31 IU/L
S.G.P.T. (ALT)	24	M:Upto 45 & F:Upto 34 IU/L
Alkaline Phosphatase	99	53-128 IU/L
S. LDH		2-12yrs: 180-360 & 12-60 yrs: 125-220 IU/L

SERUM PROTEINS

Total Protein		6.0-8.0 g/dL
Serum Albumin		3.5-5.5 g/dL
Serum Globulin		2.5-3.5.g/dL
A:G Ratio		1.2-1.5:1

RENAL FUNCTION TEST

B.Urea	16	15-40 mg/dL
S.Creatinine	0.50	F: 0.6-1.2 & M: 0.7-1.4 mg/dL
Uric Acid	2.5	F: 2.6-6.0 & M: 3.5-7.2 mg/dL

Calcium		9.0-11.0 mg/dL
Phosphorus		2.5-4.5 mg/dL
Magnesium		1.8-2.2 mg/dl

PANCREATIC FUNCTION TEST

S. Lipase		Upto 60 U/L
S. Amylase		Upto 80 U/L

BLOOD GLUCOSE

Blood Glucose, Random	112	70-140 mg/dL
Blood Glucose, Fasting		70-100 mg/dL
Blood Glucose, Post-Prandial		100-140 mg/dL

SERUM ELECTROLYTES

S. Sodium (Na+)		135-145 mmol/L
S. Potassium (K+)		3.5-5.0 mmol/L
S. Ca++		1.3-1.5 mmol/L
Iron		ug/dl

Kindly correlate clinically..!!s

Technician
(Reports Checked

RAIPUR INSTITUTE OF MEDICAL SCIENCES RIMS

Consultant
Clinical biochemistry laboratory

Note: These reports are for assisting Doctors/Physicians in their Treatment and Not for Medico-legal purposes and should be correlated clinically.

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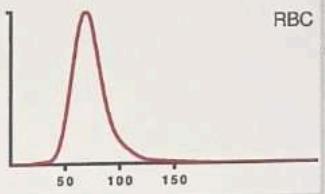
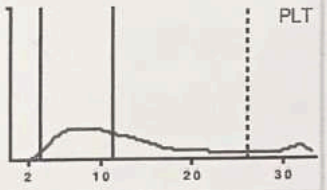
Results

Run Date	25/05/2025 10:52:32 AM	**Operator**	ABX
Last Name		**Sample ID**	AUTO_SID0028
First Name	SURESH PATLE	**Department**	
Gender	Male	**Age** 55 Y	**Physician**	
Patient ID	AUTO_PID06987	**Type**	Man
Date of birth			
Sample comments			

				Range
RBC	5.53	*	10⁶/µL	4.20 - 6.00
HGB	13.8		g/dL	13.0 - 17.0
HCT	42.5	*	%	39.0 - 52.0
MCV	76.9	*	µm³	76.0 - 100.0
MCH	24.9	L	pg	26.0 - 34.0
MCHC	32.4		g/dL	32.0 - 35.0
RDW-CV	16.6	h	%	11.0 - 16.0
RDW-SD	47.0		µm³	37.0 - 49.0



				Range
PLT	187	*	10³/µL	150 - 400
PCT	0.21	*	%	0.15 - 0.40
MPV	11.2	h*	µm³	8.0 - 11.0
PDW	23.4	h*	µm³	11.0 - 22.0
P-LCC	82	*	10³/µL	44 - 140
P-LCR	43.7	*	%	18.0 - 50.0



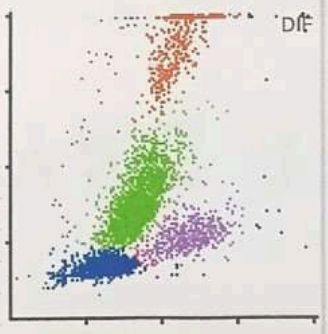
Recommended actions
Rerun sample

Alarms
PLT
RBC PLT Interference

Susp. Pathologies
Hypochromia

			Range
WBC	6.55	10³/µL	3.50 - 10.00

	#		Range	%		Range
NEU	3.10		1.60 - 7.00	47.7		40.0 - 73.0
LYM	2.29		1.00 - 3.00	35.1		15.0 - 45.0
MON	0.49		0.20 - 0.80	7.5		4.0 - 12.0
EOS	0.59	h	0.00 - 0.50	9.0	h	0.5 - 7.0
BAS	0.05		0.00 - 0.15	0.7		0.0 - 2.0
LIC	0.03		0.00 - 0.10	0.4		0.0 - 1.0



Slide Review

Neutrophil	Myeloblast	Anisocytosis
Lymphocyte	Promyelocyte	Hypochromia
Monocyte	Myelocyte	Polychromasia
Eosinophil	Metamyelocyte	Poikilocytosis
Basophil	Blast	Microcytosis
Atypical Lymphocyte	Target Cell	Macrocytosis
Other	Sickle Cell	Platelet Clumps

Reviewed on _____ by _____ Signature :

RAIPUR INSTITUTE OF MEDICAL SCIENCES RIMS

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DEPARTMENT OF MICROBIOLOGY

Patient`s Name	SURESH RATHORE	**AGE/SEX**	55Y/MALE
Lab No		**PATIENT ID**	
Ref by Dr.	RIMS	**OPD /IPD:**	
Ward	CAMP	**Sample Receiving Date**	24/05/2025
Specimen	Serum	**Report Releasing Date**	25/05/2025

SEROLOGILCAL TEST REPORT

S. No.	TEST	METHOD	RESULT
31.	ASO Titer	Latex Agglutination Test	
2.	CRP	Quantative Test	
3.	RA Factor	Latex Agglutination Test	
4	Dengue Test	Rapid Card Test	
5.	Widal Test	Slide Agglutination Test	
6.	Direct Coombs Test	Agglutination Test	
7.	In-direct Coombs Test	Agglutination Test	
8.	VDRL Antigen Test	Rapid Card Test	
9.	HbsAg	Rapid Card Test	NON-REACTIVE
10.	Anti-HCV	Rapid Card Test	
11.	HIV 1 &2	Rapid Card Test	
Please Note:-Kindly correlate clincally.			

RAIPUR INSTITUTE OF MEDICAL SCIENCES ★ RIMS

TECHNICIAN.

MICROBIOLOGIST

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RIMS HOSPITAL URLA

(A unit of LORD BUDDHA EDUCATIONAL SOCIETY)

Health For All

PT. NAME : MR. SURESH PATALE AGE / SEX: 55Y / M
PATIENT ID : RIMS/ DATE:02-06- 2025
REF. DR. / DEPT : RIMS HOSPITAL, URLA (OPD)

X RAY CHEST (PA VIEW)

- Trachea is central.
- Lung fields are clear bilaterally.
- No evidence of consolidation, collapse, or effusion.
- Cardiac silhouette is normal in size and contour.
- Mediastinal contours are normal.
- Diaphragmatic domes are normal in position and outline.
- Costophrenic angles are sharp.
- Bony thorax appears intact, no fractures seen.

ADVISED: Clinical correlation.

RESIDENT DOCTOR

DR. KASHI NATH SARKAR
REG NO-C.G.M.C 3357/2011
MBBS
DEPARTMENT - RADIOLOGYA

RIMS Rural Health & Training Center (RH&TC) Industrial Corporation Building, Near Axis Bank, Urla, Dist.-Raipur, Pin – 492003, Contact Number – 91091-90902

Medical College (Main Campus) – Raipur Institute Of Medical Sciences (750 Beded Hospital & Medical College) at Bhansoj Road . Off, NH-06, Village-Godhi, Raipur (C.G.), Mob. No.-9109190914, 9303081217 Fax : 0771-3053089, www.rimsindia.ac.in

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RIMS HOSPITAL URLA

(A unit of LORD BUDDHA EDUCATIONAL SOCIETY)

Health For All

PT. NAME : MR. SURESH PATLE AGE / SEX: 55Y / M
PATIENT ID : RIMS/ DATE: 02-06-2025
REF. DR. / DEPT : RIMS HOSPITAL, URLA (OPD)

SONOGRAPHY OF WHOLE ABDOMEN

LIVER: The liver is normal in size, shape and has smooth margins. It is uniformly isoechoeic with normal echotexture. No SOL is seen. Intra-hepatic biliary radicals are not dilated.

GALL BLADDER: The gall bladder is Contracted

COMMON BILE DUCT & PORTAL VEIN: The common bile duct is normal in caliber. No calculi are seen in it. The portal vein is normal in calibre and course.

SPLEEN: The spleen is normal in size and shape. Its echotexture is homogeneous. No evidence of focal lesion is noted.

PANCREAS: The pancreas is obscured due to bowel gases.

KIDNEYS: Both kidneys have normal cortical echotexture and have smooth margins. Cortico-medullary differentiation is maintained.

Right kidney measures ~ 11.9X5.8 cms. No calculus or hydronephrosis seen in right kidney.

Left kidney measures ~ 10.8X4.8 cms. No calculus or hydronephrosis seen in left kidney.

URINARY BLADDER: The urinary bladder is well distended. It shows uniformly thin walls and sharp mucosa. No intra-luminal calculus or diverticulum is seen.

PROSTATE: The prostate is normal in size and measures ~ 20cc in volume. No focal lesion seen.

No free fluid is seen in the peritoneal cavity at the time of examination.

PROVISIONAL IMPRESSION :

- **No significant abnormality detected.**

ADVISED: Clinical correlation.

RESIDENT DOCTOR

RIMS Rural Health & Training Center (RH&TC) Industrial Corporation Building, Near Axis Bank, Urla, Dist.-Raipur, Pin – 492003, Contact Number – 91091-90902

Medical College (Main Campus) – Raipur Institute Of Medical Sciences (750 Beded Hospital & Medical College) at Bhansoj Road . Off, NH-06, Village-Godhi, Raipur (C.G.), Mob. No.-9109190914, 9303081217 Fax : 0771-3053089, www.rimsindia.ac.in

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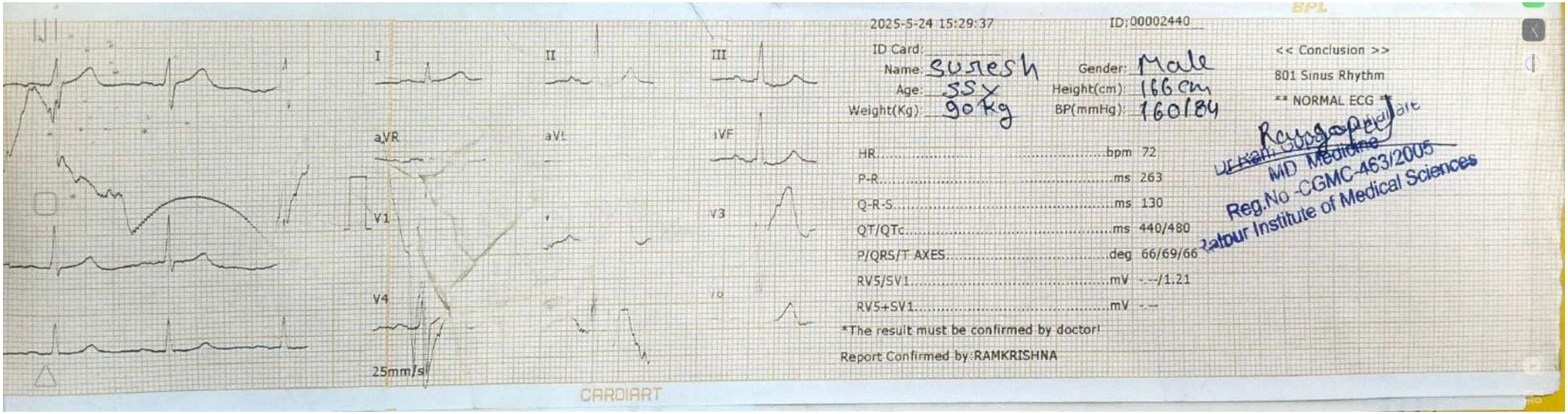

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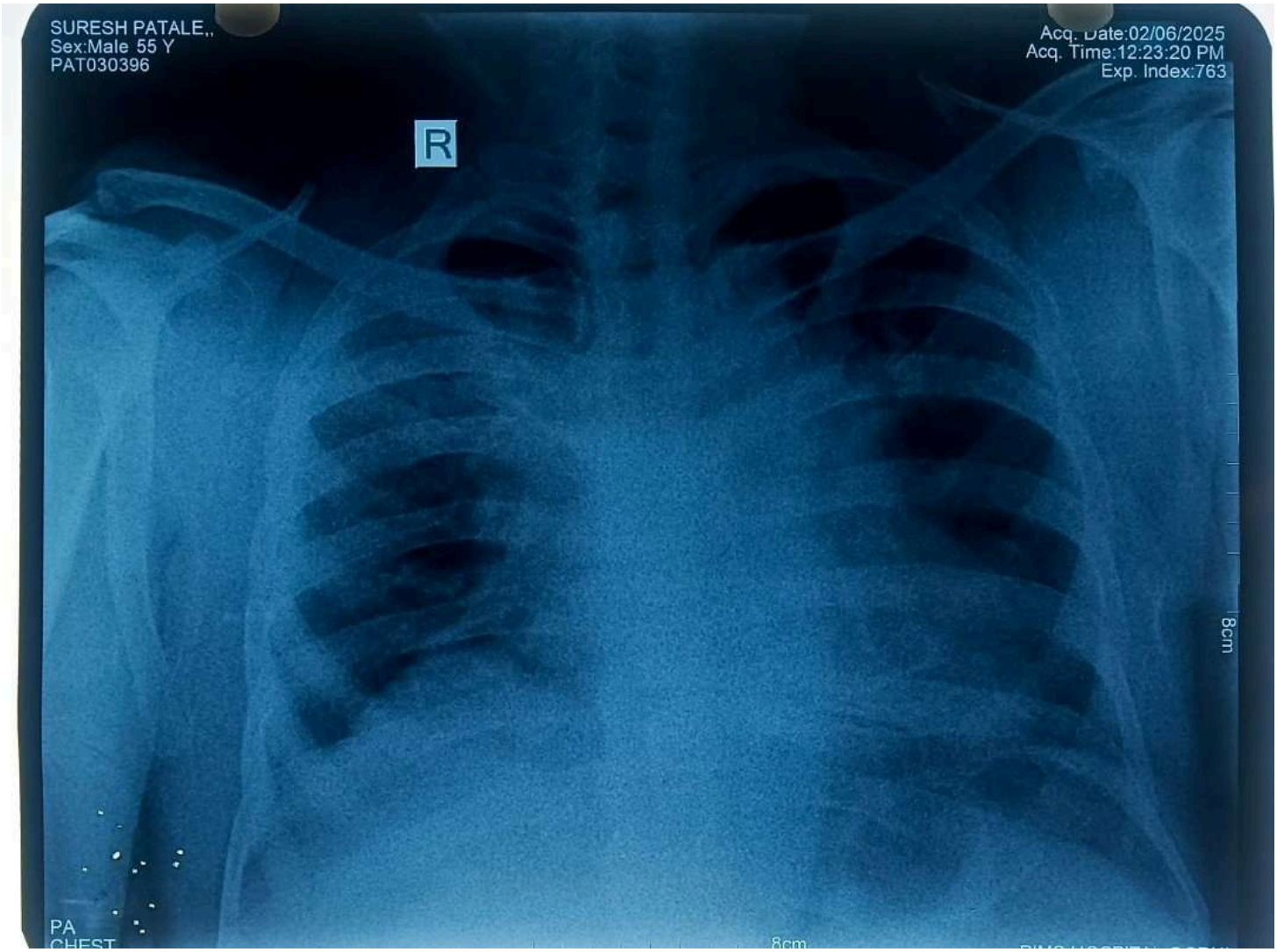

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Annexure XXXIX: AFAL Environment Policy

ALOK FERRO ALLOYS LIMITED

ENVIRONMENT POLICY

ALOK FERRO ALLOYS LTD. A unit of Hira group of industries is committed to conduct business with strong environmental conscience towards community, customer and employees by:

- **Conserving natural resources.**
- **Executing Clean Development Mechanism (CDM) project.**
- **Adopting and promoting industry best practices to improve our environmental performance.**
- **Continuous monitoring and protecting air, water and soil.**
- **Complying with all relevant legislation and regulation on Environmental protection.**
- **Promoting transformation of solid waste into more value added product.**
- **Applying stringent control to reduce generation of hazardous waste.**
- **Accelerating the forestation and water harvesting.**
- **To conduct environment awareness training program through experts.**

Date:----------

Director

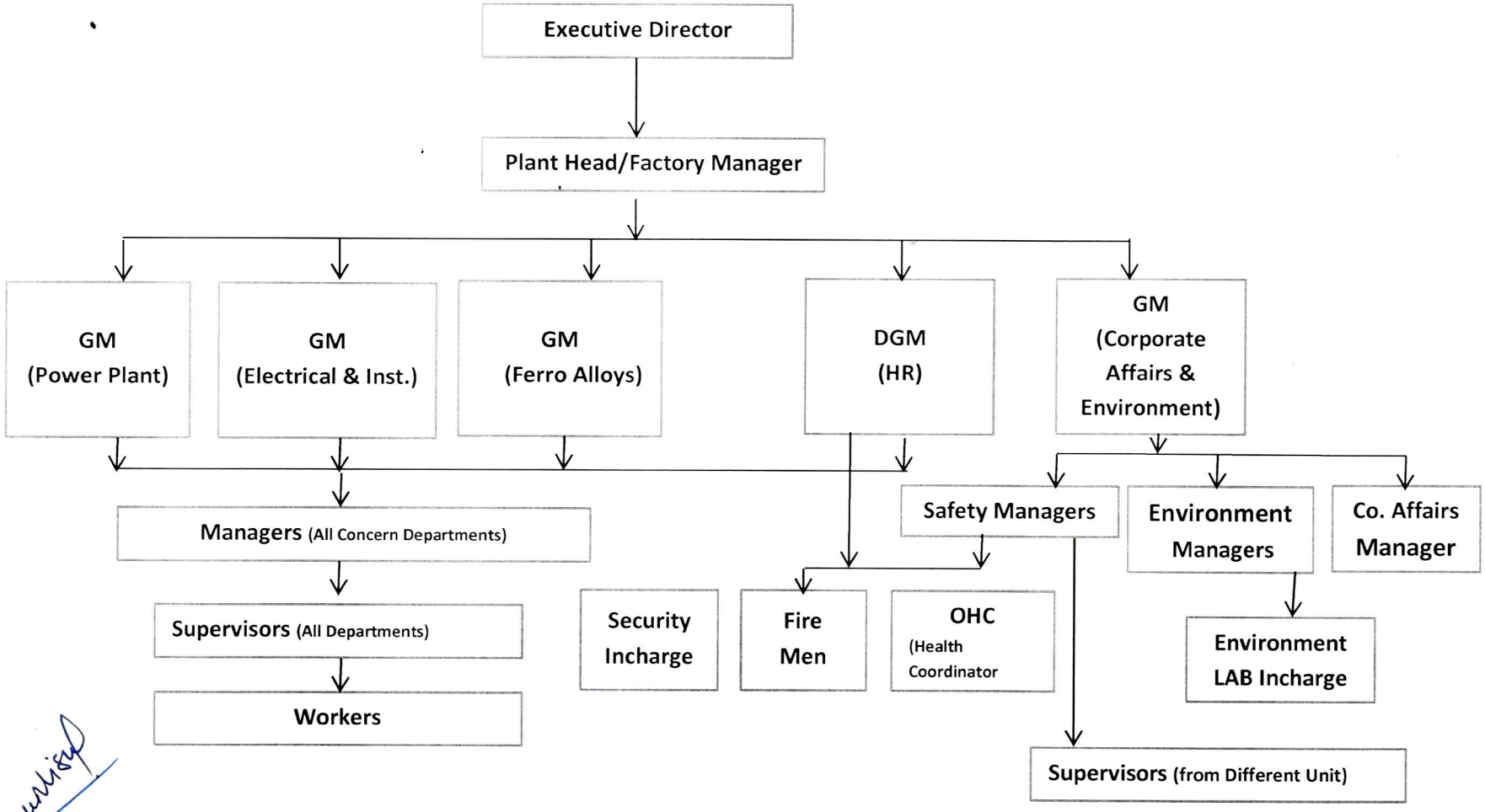
ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

Annexure XXXX: AFAL Environment Cell

ALOK FERRO ALLOYS LIMITED (UNIT -II)

Urla Industrial Area, Urla Dist – Raipur (C.G.) 492003

ENVIRONMENT, HEALTH & SAFETY MANAGEMENT CELL



ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

Annexure XXXXI: Newspaper Publication and Uploaded EC Copy on Website

Nation

The whole world is eager to research India's spiritual heritage.

Yogi Adityanath
CM, Uttar Pradesh

Dahi handi loot' to mark Janmashtami in Mumbai

'Govindas' form a human pyramid to break the 'Dahi Handi' on the occasion of 'Janmashtami' festival in Thane on Saturday, PTI.

Yogi announces Rs 30,000 cr for development of Brij

UP CM Yogi Adityanath announced a fund of Rs 30,000 crore for the development of the Brijdham region in Mathura district.

Press Trust Of India

MATHURA : Uttar Pradesh Chief Minister Yogi Adityanath on Saturday announced a fund of Rs 30,000 crore for the development of the Brijdham region in Mathura district. He said the plan is to connect pilgrimage sites like Mathura, Vrindavan, Barsana and Gokul -- regions, he claimed, that go back to the Dwapar Yug. "Our government is committed to respecting the sentiments of revered saints and to promoting the Brij region. We are making those works possible, which were once considered impossible," he said. Adityanath said that whenever the world has to overcome a crisis, only India's spiritual heritage has paved the way for lasting peace and harmony.

HIGHLIGHT

- **The plan is to connect pilgrimage sites like Mathura, Vrindavan, Barsana and Gokul, Yogi said.**

According to priests, this is the 5,252nd birth anniversary of Lord Krishna. On the day, Adityanath felicitated saints at an event held at Panchjanya Auditorium in Mathura's Dampier Nagar. The chief minister also inaugurated and laid the foundation of 118 development projects worth about Rs 646 crore in Mathura-Vrindavan, the UP government said in a statement. "We are witnessing the mythological history of 5,000 years. On the occasion of Shri Krishna Janmashtami, devotees from the country and the world have gathered here with devotion. Shri Krishna resides in the holy soil and dust of Mathura. It is rare to find such devotion anywhere else in the world," he said at the event, according to the statement. "The whole world is eager to research India's spiritual heritage. Whenever the world has to overcome a crisis, only India's spiritual heritage has paved the way for lasting peace and harmony," he added.

IMD warns of heavy rainfall in MP, M'rashtra

NEW DELHI: The India Meteorological Department (IMD)A on Saturday forecast widespread heavy to extremely heavy rainfall in several parts of the country between August 16 and August 22, along with strong winds and thunderstorms. According to the weather department, Konkan, Madhya Maharashtra, Goa, Gujarat and Saurashtra will see very heavy rain on August 16 and again between August 18-20. Telangana is likely to receive extremely heavy showers on August 16-17, while Coastal Karnataka will see similar conditions on August 18-19. In central and eastern regions, south Vidarbha is forecast for extremely heavy rain on August 16, and Madhya Pradesh on August 18. Odisha, Chhattisgarh and Bihar will see heavy rainfall between August 18-22, the IMD said. In the north, Uttarakhand is set for very heavy rain on August 16-17, while East Rajasthan is likely to be hit on August 19, 21 and 22. Himachal Pradesh, Jammu & Kashmir, Punjab, Haryana and Uttar Pradesh are also expected to receive heavy rain on select days, the IMD added. The northeast, including Assam, Meghalaya and Arunachal Pradesh, is likely to see heavy rainfall from August 16-22. Winds of 40-50 kmph are expected in several regions through August 20, according to the weather department.

BizBriefs

BEST OF THE REST

STUDY ABROAD-EXPO

Karnataka government's 'study abroad' scheme attracts over 5,000 aspirants

BENGALURU : Over 5,000 students have already registered for the government's ambitious "study abroad" initiative through the Karnataka Vocational Training and Skill Development Corporation (KVTSDC), the Department of Skill Development said on Saturday. Encouraging more participation, the department announced that students can still enroll by attending the day-long "Study Abroad Expo" at Hotel Lalit Ashok on August 17. Over 60 international universities offering attractive academic opportunities for Karnataka students have already camped at the venue, officials said. To ease financial concerns, several public and private banks have set up stalls offering education loans at competitive interest rates, an official release said. Public undertaking Karnataka bank has assured the government of the most student-friendly financial packages. "Studying abroad is no longer a privilege reserved for the wealthy. With our government's initiative, even students from economically weaker backgrounds can now pursue higher education overseas without financial burden. This is the first-of-its-kind initiative in India making global education accessible to all sections of society," said Karnataka Minister for Skill Development, Entrepreneurship and Livelihood Sharanaprakash Patil. Unlike private programmes that stops support once students leave India, the government-backed scheme guarantees continued assistance abroad-covering welfare, academic progress, and legal aid, the release said. The expo also ensures transparency, offering free guidance from university selection to post-departure support, without agency fees, it added

CUSTODY

Accused shot in leg while trying to escape from custody

PATNA : A man, arrested in connection with a murder, was shot on his leg in Patna after he tried to escape from police custody, officials said on Saturday. Anshu Kumar was arrested by the Patna Police from Lucknow on Thursday in connection with the murder of Ramkant Yadav (50), who was involved in the sand mining business, on July 10 in the Ranitalab area, they said. "Kumar was brought to Patna on Friday. He was being taken to the place where he hid the weapon of offence.

When the police team reached Dhana Nisarpura locality, he attempted to escape," a statement said. "Police resorted to controlled firing that caused bullet injuries in the leg of the accused," it said.

CLOUDBURST

Mehbooba cancels visit to disaster-hit village in J-K

JAMMU : Peoples Democratic Party president and former chief minister Mehbooba Mufti has cancelled her scheduled visit to the cloudburst-hit village in Jammu and Kashmir's Kishtwar district in view of the ongoing rescue and relief operation, a party spokesperson said.

Mufti was scheduled to visit the affected Chisoti village of Padder subdivision on Sunday.

India got torn freedom in 1947: Kailash Vijayvargiya

INDORE : Madhya Pradesh Minister Kailash Vijayvargiya has said India achieved torn freedom in 1947 when wrong policies led to its Partition, and hoped that the tricolour would fly in Islamabad when Akhand Bharat will be created.

A video of the senior BJP leader's remarks, purportedly made at a cultural event in Indore on the eve of Independence Day, surfaced on social media on Saturday. "Due to wrong policies, Bharat Mata was divided into two. The freedom for which Bhagat Singh embraced the gallows was not achieved on August 15.

We achieved a kati phati (torn) azadi," he said. Vijayvargia further said, "We envision Akhand Bharat.

One day, the tricolour will be hoisted in Islamabad and the dream of Akhand Bharat will be realised."

Referring to Operation Sindoor, launched after the Pahalgam terror attack, the former BJP general secretary in charge of West Bengal said, "Indian armed forces crushed Pakistan-sponsored terrorism under the leadership of Prime Minister Narendra Modi".

He said the time has changed. "Today, drone and missile attacks are countered to ensure our soldiers are not harmed," he added.

J-K CM announces ex-gratia assistance to people affected by cloudburst

SRINAGAR : Jammu and Kashmir Chief Minister Omar Abdullah on Saturday announced ex-gratia relief for those affected by the recent cloudburst and flash floods in Chisoti village of Kishtwar district. During a visit to the disaster-struck village, he announced the financial aid from the Chief Minister's Relief Fund as a "measure of solidarity and immediate relief" to the affected people, and also assured them long-term support. Abdullah took firsthand stock of the devastation caused by the cloudburst on Thursday afternoon that left 60 people dead, over 100 injured and 82 others missing. The families of those who lost lives in the calamity would receive Rs 2 lakh each, while those who sustained severe injuries would be given Rs 1 lakh and those with minor injuries Rs 50,000, Abdullah said.

NAME CHANGE

It is informed to the general public that I, (Old name) R. Pallavi D/o R.J. Raju. Resident of (Old address) Qr.No. 03/B, Street-21, Sector-10, Bhilai Nagar, tehsil and district - Durg (CG) Pin - 490006 have changed my (old name) R. Pallavi D/o R.J. Raju. So in future I should be recognized by my new name that is Pallavi Anand Panangipalli Wife of Anand Kumar Panangipalli in all Goverment and other documents.

Pallavi Anand Panangipalli
Resident of New Address - House No.10, Royal Residency, Potiya Road, Borsi, DURG (C.G.)

AFFIDAVIT

By virtue, an affidavit before the Notary Public, Raipur, I **P DEVADAS** Resident of House No. 24/650, Sankara Bhavanam, Kalingarajapuram, Kanjampuram Post, Kanniyakumari District, Tamil Nadu. Pin 629154 declare by the affidavit No 25AA411075 DT 13 August 2025 that now onwards, I shall be known as **DEVADAS P** for future purposes

AFFIDAVIT

By virtue, an affidavit before the Notary Public, Raipur, I **C AZHAGAMMA** Resident of House No. 24/650, Sankara Bhavanam Kalingarajapuram Kanjampuram Post, Kanniyakumari District, Tamil Nadu. Pin 629154 declare by the affidavit No 25AA411075 DT 13 August 2025 that now onwards, I shall be known as **AZHAGAMMA C** for future purposes

HIRA
ALOK FERRO ALLOYS
M/s ALOK FERRO ALLOYS LIMITED
Plot No. – 458/1, 459, Urla Industrial Area, Urla, Dist- Raipur (C.G.)

Public Notice

This is to inform that the Ministry of Environment, Forest and Climate Change, New Delhi vide File No. : IA-J-11011/97/2024-IA-II(Ind-I) Dated 01.08.2025 have accorded Environmental Clearance for M/s Alok Ferro Alloys Limited, for Expansion in Ferro Alloys Production capacity; SiMn – 14,496 TPA to 19,000 TPA And/or FeMn – 14,496 TPA to 28,000 TPA and proposed FeSi – 9,000 TPA And/or Pig Iron – 28,500 TPA and Proposed production of Ferro Alloys (Si-Mn/ Fe-Mn) -6000 TPA by Ferro Melt Induction Furnace (1500 KW/2100 Kg) at Plot No. – 458/1, 459, Urla Industrial Area, Urla, Raipur – 492003, Chhattisgarh. Copy of the Environmental Clearance letter referred above for the proposal project is available at website of the Ministry of Environment, Forest and Climate Change at https://parivesh.nic.in/ and Copy of the same is submitted to Member Secretary, Chhattisgarh Environment Conservation Board, New Raipur (C.G.) and Regional Officer, Chhattisgarh Environment Conservation Board, Raipur (C.G.).

Place: Raipur
Date:
GM Corporate Affairs

Name Declaration

I, Krishnakant, son of Shri Bishweshwar Prasad Sahu, resident of Super Estate colony, house no C-13 Mahaveer Nagar Raipur Chhattisgarh ,hereby declare that in my 10th marksheet and old passport, my name is recorded as "Krishnakant, whereas in all my other documents, my name is recorded as "Krishnakant Sahu. I affirm that "Krishnakant" and "Krishnakant Sahu" refer to the same person, i.e., myself. This advertisement is published for the purpose of my passport application. Contact: Mobile number 9497710780

SOUTH EASTERN COALFIELDS LIMITED
"A MINI RATNA COMPANY"
NOTICE

All the tenders issued by SECL for procurement of Goods, Works and Services are available on website of SECL **http://www.secl-cil.in**,CIL e-procurement portal **http://coalindiatenders.nic.in** and Central Public Procuremrnt Portal **http://eprocure.gov.in** In addition, procurement is also done through GeM portal **http://gem.gov.in.** SECL's mining services tenders are also now available on GeM portal **http://gem.gov.in**

SOUTH EAST CENTRAL RAILWAY

Annexure-A

Work Description: E-auction for "License for Commercial advertisement work (non-digital) 'Out of Home (OOH)'advertising in the circulating area of SDL (Shahdol) Railway stations having total area of 4600 sq ft"
E-Auction has been invited for "License for Commercial advertisement work (non-digital) 'Out of Home (OOH)'advertising in the circulating area of SDL (Shahdol) Railway stations having total area of 4600 sq ft" of Bilaspur Division for a period of Five (5) years. The catalogue has already been published on the IREPS Website (https://ireps.gov.in) on dated: **07.08.2025.** The details are as follows-

Catalogue No.	Category	Auction Date & Time	Lot No.	Lot Description	Contract period
OOH-SDL-25	Advertising Out of Home	26.08.2025 12:00	ADVT-BSP-SDL-OH-180-25-1	License for Commercial advertisement work (non-digital) 'Out of Home (OOH)' advertising in the circulating area of SDL (Shahdol) Railway stations having total area of 4600 sq ft"	1826 Days

CPR/10/248
Sr. Divisional Commercial Manager
S.E.C. Railway, Bilaspur

South East Central Railway, Bilaspur Division

ANNEXURE-A

Work Description:- E-Acution for allotment of license for the management and operation of Ride-Halling Services' for passengers commuters and general public at Bilaspur (BSP) Railway Station.
For a period of 03 years e-Auction has been invited for the work of license for management and operation of Ride-Halling Services' for passengers commuters and general public at Bilaspur (BSP) Railway Station The catalogue has already been published on the IREPS Website https://ireps.gov.in. **Dt. 12.08.2025.** The details are as follows :-

Catalogue No.	Category	Auction Date & Time	Lot No.	Lot Description	Contract Period
Ride-Haling-2	Misc-Stalls-Services (Promotional Kiosk)	28.08.2025 12:00:00	MISS-BSP-BSP-PrKiosk-108-25-1	license for the management and operation of Ride-Halling Services' for passengers commuters and general public at Bilaspur (BSP) Railway Station.	1826 Days

CPR/10/FL/252
Asst. Comml. Manager
S.E.C.Railway, Bilaspur
South East Central Railway @secrail

Canara Bank
Whether Syndicate
Specialised ARM Branch : Plot No. 04, PSP Area, near AIIMS Saket Nagar, Bhopal

POSSESSION NOTICE (For Immovable Properties)

Whereas, The undersigned being the Authorised Officer of the Canara Bank under Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 and in exercise of the powers conferred under section 13 (12) read with Rule 3 of the Security Interest (Enforcement) Rules, 2002 issued a Demand Notice date mentioned below to the following borrowers/guarantors, calling upon them to repay the amount mentioned in the respective notices within 60 days from the date of receipt of said notices.
The under mentioned borrowers/guarantors having failed to repay the amount, notice is hereby given to the borrowers/ guarantors and the public in general that undersigned has taken possession of the property described herein below in exercise of powers conferred on them under section 13(4) of the said Act read with rule 8 & 9 of the said rules on the dates mentioned in respective columns. The borrowers/Guarantors in particular and the public in general is hereby cautioned not to deal with the property and any dealings with the properties will be subject to the charge of **Canara Bank, Specialised ARM Branch** for an amount herein below mentioned & interest thereon.
The borrower's attention is invited to the provisions of sub-section 8 of Sec 13 of the Act, in respect of time available, to redeem the secured assets.

Name of Account / Borrower/ Guarantor	Demand notice Dt. Possession Date	Description of Property
Borrowers: **M/s Thakur Petrochemicals Proprietor Mr. Santosh Singh Thakur S/o Mool Singh Thakur** Address: Lakhe Nagar Chowk Mahadev Ghat Road Bhilai, Raipur, Chhattisgarh-492013 Guarantor : **Mrs. Hemlata Thakur W/o Santosh Singh Thakur,** Address: Shanti Vihar Colony Dagania Opposite Paras Kirana Store, Raipur, Chhattisgarh-492013	**28.05.2025** **14.08.2025** Amount Outstanding as per demand notice ₹ 8,20,15,088.33/- + Interest & Other Charges	Part of Khasra No. 438 (Old) & 438/1-2-3 (new), Area- 1.719 hect., Situated at Village- Urla, R.I.C Abhanpur, P.C. No. 131, Tehsil - Abhanpur, District- Raipur, Chattisgarh Property Owner - Mr. Santosh Singh Thakur

Place : Raipur Date : 14.08.2025
Authorised Officer, Canara Bank

भिलाई इस्पात संयंत्र, नगर सेवायें विभाग
(दुकान अनुभाग)
दुकान अनुभाग का.से.नि. सि.इ.इ. सर्वसी/सिविल
क्र. 384 दि. 14/08/2025

आम-सूचना

एतद् द्वारा सर्वसाधारण को सूचित किया जाता है कि श्रीमती कल्पना शर्मा C/o राजेश कुमार शर्मा (आधार नं. 2099 5613 8706) प्लॉ-ई-404, अमर सोसाइटी, गंजखाना, रामदेव बाबी नं. 35, दुर्ग, जिला-दुर्ग, (छ.ग.) जो कि भिलाई इस्पात संयंत्र की सूचनाधीन में निर्मित तीन सौ अमाप 253 सेक्टर-10 "जोगन मार्केट" भिलाई नगर का लीज धारक है, जिसका अमाप क्र. 137 दिनांक 11.3.99 है। ने उक्त दुकान का मालवा / डांगा का स्वामित्व, श्री खुशवन्त फ्रांसिस जोगसन C/o P.D- Francis (आधार नं. 6214 8199 7203) प्लॉ-Qtr. No. 7A, Street-14, Sector-10, Civic Centre Bhilai, Durg, Chhattisgarh, को नाम हस्तान्तरण करने हेतु इस कार्यालय में दिनांक 23.06. 2025 को आवेदन प्रस्तुत किया है।

उक्त सौ अमाप 253 सेक्टर-10 "जोगन मार्केट" भिलाई नगर के मालवा / डांगा सम्पत्तियों हस्तान्तरण पर यदि किसी व्यक्ति, व्यक्तियों, संस्थाओं / अंशधारीय कार्यालयों, बैंकों, वित्तीय निकायों आदि को कोई आपत्ति उत्पन्न हो तो इस आम सूचना प्रकाशन के 15 दिनों के भीतर अपनी आपत्ति / दावा इस कार्यालय में कार्यालयीन समय पर उपस्थित होकर मूल दस्तावेज के साथ प्रस्तुत कर सकते हैं। निर्धारित / अवधि समाप्त हो जाने के बाद प्राप्त आपत्ति / दावा पर कोई विचार नहीं किया जायेगा।

मेरे हस्ताक्षर तथा कार्यालय के मुहर से आज दिनांक 14 / 08 / 2025 को जारी किया गया।

सहा. महाप्रबंधक (ए से – दुकान / डीडा / लाइन)
नगर सेवायें, भिलाई इस्पात संयंत्र

AFFIDAVIT

By virtue, an affidavit before the Notary Public, Raipur, I **P DEVADAS** Resident of House No. 24/650, Sankara Bhavanam, Kalingarajapuram, Kanjampuram Post, Kanniyakumari District, Tamil Nadu. Pin 629154 declare by the affidavit No 25AA411075 DT 13 August 2025 that now onwards, I shall be known as **DEVADAS P** for future purposes

सांसद बृजमोहन अग्रवाल ने पं. चक्रपाणी शुक्ल हाईस्कूल मैदान में किया ध्वजारोहण

हर्षोल्लास के साथ जिले में मनाया गया स्वतंत्रता दिवस

- स्वतंत्रता संग्राम सेनानी एवं शहीदों के परिजनों का किया गया सम्मान
- स्कूली बच्चों ने दी मनमोहक सांस्कृतिक प्रस्तुतियां
- उत्कृष्ट कार्य के लिए 64 अधिकारी कर्मचारी हुए सम्मानित

बलौदाबाजार, 16 अगस्त (देशबन्धु)। 79 वां स्वतंत्रता दिवस समारोह जिले में अत्यंत हर्ष एवं उल्लास के साथ गरिमामय ढंग से मनाया गया। जिला स्तरीय समारोह के मुख्य अतिथि सांसद रायपुर बृजमोहन अग्रवाल ने स्थानीय पंडित चक्रपाणि हाईस्कूल मैदान में ध्वजारोहण किया। उन्होंने मुख्यमंत्री के संदेश का वाचन करते हुए राज्य सरकार की प्रमुख उपलब्धियां एवं भावी कार्य-योजनाओं की जानकारी दी। श्री अग्रवाल ने इस अवसर पर स्वतंत्रता संग्राम सेनानियों और शहीदों के परिजनों का कुशलक्षेम पूछते हुये शाल एवं श्रीफल भेंटकर सम्मानित किया। इस अवसर पर उन्होंने शासकीय योजनाओं में उत्कृष्ट कार्य के लिए 64 शासकीय कर्मियों का भी जिला प्रशासन की ओर से सम्मानित कर शुभकामनाएं दी।

पंडित चक्रपाणि हाईस्कूल मैदान में जिला स्तरीय समारोह सवेरे 9 बजे हुआ। ध्वजारोहण पश्चात जिला पुलिस बल, नगर सेना, एनसीसी, स्काउट गाइड एवं रेडक्रॉस की टुकड़ी ने झण्डे एवं अतिथि को शानदार सलामी दी। परेड का नेतृत्व रक्षित निरीक्षक श्रीमती उषा ठाकुर एवं सेकेण्ड टू आईसी सब इंस्पेक्टर मेघनाथ बंजारे ने किया। समारोह में हर्ष और उल्लास के प्रतीक के रूप में रंगीन गुब्बारे आसमान में उड़ाये गये। श्री अग्रवाल ने जिलें के स्वतंत्रता संग्राम सेनानी परिजन लक्ष्मी ठाकुर, सावित्री सोनी, वीर शहीद उपनिरीक्षक युगल किशोर वर्मा, आरक्षक हुमेश्वर प्रसाद कुर्रे, हीरा लाल गायकवाड़, संतराम साहू, धनंजय वर्मा, संतोष ध्रुव, नरेश कुमार ध्रुव, मिथिलेश कुमार साहू, टेकराम वर्मा, प्रधान आरक्षक हेमलाल कौशिक के परिजनों का श्रीफल एवं साल से सम्मान कर उनका हाल चाल जाना। इसके अतिरिक्त जिले के मीसाबंदियो का भी सम्मान किया गया। इसके साथ ही सांसद श्री अग्रवाल ने मुख्य मंच से करीब 64 अधिकारी-कर्मचारियों को उनके बेहतर सेवा के लिए जिला प्रशासन की ओर से सम्मानित किया। इनमें राजस्व विभाग सहायक ग्रेड-2 श्रीमती मधु वर्मा, सहायक ग्रेड-3 चुम्मन लाल साहू, तहसीलदार टुण्डरा युवराज सिंह कुर्रे, पटवारी होलिका प्रसाद कैवर्त्य एवं राजीव रंजन पालेश्वर, नायब तहसीलदार कसडोल ईश्वर प्रसाद केंवट, सहायक ग्रेड-2 यशवंत सिंह ध्रुव, पटवारी वेद व्यास साहू, सहायक ग्रेड-3 झामेश्वर साहू, राजस्व निरीक्षक रामजी ध्रुव, पटवारी सिकेश ध्रुव, सहायक ग्रेड-3 श्रीमती हेमलता ध्रुव, कोटवार विरेन्द्र कुमार मानिकपुरी, पटवारी नागेश्वर ध्रुव, विवेक द्विवेदी श्रीमती तृप्ति वाजपेयी एवं श्रीमती कौशिल्या साहू, पुलिस विभाग निरीक्षक थाना हथबंद कैलाशचंद्र, निरीक्षक थाना सिमगा रितेश मिश्रा, स.उ.नि. थाना गिधौरी नेहरू राम साहू, आरक्षक कृष्णा ठाकुर, अरुण साहू, खुलेश्वर पटेल, राजकुमार केंवट, अरूण घृतलहरे, कृष्णा साहू, सनत चेलक, धमेन्द्र यादव, तुलेश चन्द्रवंशी, वेदप्रकाश मरावी, वन विभाग परिक्षेत्र अधिकारी सुमीत साहू, वनरक्षक पुनमचन्द फेकर, दिलेश्वर प्रसाद कंवर एवं तिलकराम पैकरा, पंचायत एवं ग्रामीण विकास विभाग (आवास) हृदेश जायसवाल, शिक्षा विभाग सहायक ग्रेड-2 परमेश्वर दास पड़वार, नगरीय प्रशासन एवं विकास विभाग कम्प्यूटर ऑपरेटर संजय कुमार साहू एवं धनेश पटेल, ऋषभ कुमार साहू, सफाई दरोगा हृदयलाल जासवाल एवं महेन्द्र कुमार वर्मा, उद्यान विभाग ग्रामीण उद्यान विस्तार अधिकारी खिलेश्वर साहू, लोक स्वास्थ्य यांत्रिकी विभाग सहायक अभियंता मनोज दाखोड़, आबकारी विभाग आबकारी उपनिरीक्षक मनराखन नेताम, जल प्रबंधन संभाग क. 02 बलौदाबाजार उपअभियंता सुश्री ऐश्वर्या साहू, जिला कोषालय सहायक ग्रेड-1 खेम सिंह ध्रुव, आयुष विभाग फार्मासिस्ट द्वारिका प्रसाद पैकरा, जिला व्यापार एवं उद्योग केन्द्र सहायक अधीक्षक श्रीमती अंजु ध्रुव, कृषि विभाग सहायक तकनीकी अधिकारी चन्द्रपाल जोगी, महिला एवं बाल विकास विभाग सहायक ग्रेड-3 अमृत लाल केंवट, छ.ग. स्टेट पावर डिस्ट्रीब्यूसन कंपनी लिमिटेड सहायक अभियंता वासुदेव साहू एवं कनिष्ठ अभियंता कुंदन लाल ध्रुव, तकनिशियन शिवकुमार साहू, स्वास्थ्य विभाग चिकित्सा अधिकारी डॉ.देवराज कौशिक एवं सुपरवाईजर सफीक मोहम्मद कुरैशी, लोक निर्माण विभाग उप अभियंता विभाकर जोशी एवं उप अभियंता श्रीमती रीना कोरी, क्रेडा विभाग कनिष्ठ सहायक रोहित पैकरा, खाद्य विभाग खाद्य निरीक्षक कमलनारायण साहू, सम्पर्क केन्द्र सहायक ग्रेड-3 उमेश कुमार, पशुधन विकास विभाग अतिरिक्त उप संचालक डॉ. उपेन्द्र रात्रे, सहायक पशु चिकित्सा क्षेत्र अधिकारी संजीव कुमार पैकरा, सहकारिता विभाग जिला समन्वयक पारख साहू, राष्ट्रीय सूचना विज्ञान केन्द्र (एनआईसी) नेटवर्क इंजीनियर रोशन वर्मा शामिल है। सभी अधिकारियों एवं कर्मचारियों को जिला प्रशासन की ओर से प्रमाण पत्र एवं स्मृति चिन्ह देकर सम्मानित किया।

सीनियर मार्च पास्ट में बेहतर प्रदर्शन हेतु प्रथम पुरस्कार जिला पुलिस बल पुरूष, द्वितीय पुरस्कार एनसीसी शासकीय डी.के महाविद्यालय बलौदाबाजार एवं तृतीय पुरस्कार एनसीसी मिनीमाता शासकीय कन्या महाविद्याल बलौदाबाजार को प्रदान किया गया। इसी तरह जूनियर मार्च पास्ट में प्रथम पुरस्कार गाईड पं. लक्ष्मी प्रसाद तिवारी कन्या उच्चतर माध्यमिक विद्यालय बलौदाबाजार, द्वितीय पुरस्कार स्वामी आत्मानंद पं. चक्रपाणी शुक्ल उच्चतर माध्यमिक विद्यालय बलौदाबाजार एवं तृतीय पुरस्कार रेडक्रास पं. लक्ष्मी प्रसाद तिवारी कन्या उच्चतर माध्यमिक विद्यालय बलौदाबाजार को प्रदान किया गया। इसी तरह सांस्कृतिक कार्यक्रमों में पं. लक्ष्मी प्रसाद तिवारी कन्या उच्चतर माध्यमिक विद्यालय बलौदाबाजार को प्रथम, कस्तूरबा गांधी बालिका आवासीय विद्यालय बलौदाबाजार को द्वितीय एवं गुरुकुल इंग्लिश मीडियम स्कूल बलौदाबाजार को तृतीय पुरस्कार प्रदान किया गया। इसके साथ ही मलखंभ को विशेष सांत्वना पुरस्कार प्रदान किया गया। इस अवसर पर जिला पंचायत अध्यक्ष आकांक्षा जायसवाल, नगर पालिका अध्यक्ष अशोक जैन, पूर्व विधायक बिलाईगढ़ डॉ. सनम जांगड़े, पूर्व विधायक बलौदाबाजार लक्ष्मी बघेल, पूर्व विधायक बलौदाबाजार प्रमोद कुमार शर्मा, जनपद पंचायत अध्यक्ष सुलोचना यादव, स्काउट गाईड प्रदेश उपाध्यक्ष विजय केसरवानी, भाजपा जिला अध्यक्ष आनंद यादव, कलेक्टर दीपक सोनी, एसपी भावना गुप्ता, डीएफओ गणवीर धम्मशील, सीईओ जिला पंचायत सुश्री दिव्या अग्रवाल सहित स्थानीय जनप्रतिनिधि एवं बड़ी संख्या में गणमान्य नागरिक उपस्थित थे।

महासमुंद में सांसद चौधरी ने किया ध्वजारोहण

- मुख्यमंत्री के जनता के नाम संदेश का किया वाचन
- उत्कृष्ट कार्य करने वाले 116 अधिकारी-कर्मचारी पुरस्कृत
- सांस्कृतिक कार्यक्रम ने बिखेरी छटा

महासमुंद, 16 अगस्त (देशबन्धु)। महासमुंद में 15 अगस्त स्वतंत्रता दिवस पूरे हर्षोल्लास एवं गरिमामय वातावरण में मनाया गया। देश की आजादी के 78 वर्ष पूरा होने के साथ ही 79 वें स्वतंत्रता दिवस जिला मुख्यालय के मिनी स्टेडियम में मनाया गया। समारोह के मुख्य अतिथि महासमुंद सांसद श्रीमती रूपकुमारी चौधरी ने ध्वजारोहण कर परेड की सलामी ली। इस अवसर पर कलेक्टर विनय कुमार लंगेह और पुलिस अधीक्षक आशुतोष सिंह मंच पर मौजूद थे। मुख्य अतिथि सांसद श्रीमती रूपकुमारी चौधरी ने कलेक्टर एवं पुलिस अधीक्षक के साथ परेड का निरीक्षण किया। परेड कमांडर रक्षित निरीक्षक दीप्ति कश्यप के नेतृत्व में 20 वीं वाहिनी छग्गण् सशस्त्र पुलिस बल, जिला पुलिस बलए नगर सेना महिला प्लाटून, वन विभाग, सीनियर एवं जूनियर डिवीजन एनसीसी, एनएसएस महाविद्यालय एवं विद्यालय, स्काउट, गाइडए रेडक्रॉस की कुल 11 टुकड़ियों ने सलामी दी। मुख्य अतिथि सांसद श्रीमती चौधरी द्वारा मुख्यमंत्री का जनता के नाम संदेश का वाचन किया गया एवं हर्ष के प्रतीक रंग.बिरंगे गुब्बारे आकाश में छोड़े गए। तत्पश्चात प्लाटूनों द्वारा मार्च पास्ट एवं सलामी दी गई। मुख्य अतिथि द्वारा परेड कमाण्डर एवं प्लाटून कमाण्डर का परिचय लिया गया। इस अवसर पर मुख्य अतिथि श्रीमती चौधरी ने जिले में निवासरत 19 शहीद के परिजनों को शॉल एवं श्रीफल भेंट कर सम्मानित किया। इसके अलावा उत्कृष्ट कार्य करने वाले 116 शासकीय अधिकारी.कर्मचारियों सहित पुलिस के अधिकारी.कर्मचारी को प्रशस्ति पत्र और स्मृति चिन्ह देकर सम्मानित किया गया। समारोह में 14 विद्यालयों के 840 विद्यार्थियों ने योग विधा का उत्कृष्ट प्रदर्शन किया गया। साथ ही छत्तीसगढ़ राज्य की संस्कृति और परम्परा तथा देशभक्ति की भावना से ओतप्रोत सांस्कृतिक कार्यक्रम प्रस्तुत किए गए। स्कूली छात्र.छात्राओं द्वारा रंग.बिरंगे पोशाकों में सुंदर और मनमोहक प्रस्तुति दी गई। कार्यक्रम में 6 शालाओं के लगभग 640 बच्चों ने छत्तीसगढ़ी एवं हिन्दी के देशभक्ति गीतों की शानदार संगीतमयी प्रस्तुति से सबका मन मोह लिया। सांस्कृतिक कार्यक्रम में प्रथम स्थान महर्षि विद्या मंदिर मचेवा, द्वितीय स्थान शासकीय डीएमएस उच्चतर माध्यमिक विद्यालय महासुंद एवं तृतीय स्थान न्यू होलीफेथ महासमुंद ने प्राप्त किया। इस अवसर पर मुख्य अतिथि सांसद श्रीमती चौधरी ने परेड में उत्कृष्ट मार्च पास्ट करने वाले टुकड़ियों को सम्मानित किया। इनमें सशस्त्र बल समूह में प्रथम स्थान 20वीं वाहिनी सशस्त्र पुलिस बल, द्वितीय स्थान जिला पुलिस बल, तृतीय स्थान पर नगर सेना महिला प्लाटून रहा। इसी तरह परेड गैर सशस्त्र बल समूह में प्रथम स्थान पर वन विभागए द्वितीय सीनियर डिवीजन एनसीसी एवं तृतीय जूनियर डिवीजन एनसीसी रहा। परेड कनिष्ठ में प्रथम स्काउट, द्वितीय गाइड एवं तृतीय स्थान एनसीसी आत्मानंद विद्यालय को प्रशस्ति पत्र एवं मेडल देकर सम्मानित किया गया। इसके अलावा परेड कमांडर रक्षित निरीक्षक दीप्ति कश्यप एवं सहायक उप निरीक्षक साइना अम्बिलकर को भी सम्मानित किया गया। इस अवसर पर मुख्य मंच में विधायक योगेश्वर राजू सिन्हा, पूर्व राज्यमंत्री पूनम चंद्राकर, पूर्व विधायक डॉ विमल चोपड़ा, जिला पंचायत अध्यक्ष श्रीमती मोंगरा पटेल, बीज नगम के अध्यक्ष चंद्रहास चंद्राकर, नगर पालिका अध्यक्ष निखिलकांत साहू, उपाध्यक्ष देवीचंद राठी, स्काउट गाइड संघ के अध्यक्ष येतराम साहू, बास्केट बाल संघ के जिलाध्यक्ष प्रदीप चंद्राकर सहित पार्षदगण एवं स्थानीय जनप्रतिनिधि, सीईओ जिला पंचायत हेमंत नंदनवार, वनमण्डलाधिकारी मयंक पांडेय, अपर कलेक्टर सचिन भूतड़ा, रवि कुमार साहू तथा गणमान्य नागरिक सहित अधिकारी.कर्मचारी एवं बड़ी संख्या में स्कूली छात्र.छात्राएं उपस्थित थे।

इसी तरह जिला सहकारी बैंक में सुखदेव साहू, यति यतन लाल जैन अस्पताल में प्रभारी चिकित्सक डा. एम.वाय मेमन, ग्राम पंचायत खरोरा में पंचायत भवन, प्राथमिक शाला भवन, मिडिल स्कूल, ज्ञान गंगा विद्यालय, आंगनबाड़ी भवन, चुड़ी चौक, सतनाम चौक में खरोरा पंचायत श्रीमती वीणा कमलेश चंद्राकर ने ध्वजारोहण किया गया।

ग्राम पंचायत परसदा ब में सरपंच प्रीताम्बर ध्रुव, प्रा. शाला भवन में अधिवक्ता भूपेंद्र चंद्राकर, नयापारा स्कूल में उप सरपंच बीरेंद्र चंद्राकर ने ध्वजारोहण किया।

छरछेद सहकारी समिति के रामसागर कैवर्त्य स्वतंत्रता दिवस समारोह दिल्ली में हुए शामिल

कसडोल/बलौदाबाजार, 16 अगस्त (देशबन्धु)। 15 अगस्त 2025 स्वतंत्रता दिवस के अवसर पर भारत सरकार द्वारा प्राथमिक कृषि साख सहकारी समिति मर्यादित छरछेद पंजीयन क्रमांक 207 रामसागर कैवर्त को पैक्स कम्प्यूटराईजेशन व समिति के उत्कृष्ट कार्यों के लिए लाल किला दिल्ली में विशेष अतिथि के रूप में आमंत्रित किया गया था। जिसमें कैवर्त्य ने शामिल होने का गौरव प्राप्त किया। जहां उनका शुक्रवार 15 अगस्त को स्वतंत्रता दिवस के अवसर पर सम्मान किया गया।

ज्ञात हो कि प्राथमिक कृषि साख सहकारी समिति छरछेद अग्रणी एवं विकसित सहकारी समिति है। छत्तीसगढ़ प्रदेश स्तर में समिति छरछेद की चर्चा अग्रणी समितियों में होती रहती है। वही यह पहला मौका है जब राष्ट्रीय स्तर में जिला बलौदाबाजार-भाटापारा के कसडोल विधानसभा के किसी सहकारी समिति को इतना बड़ा सम्मान के लिए दिल्ली आमंत्रित किया गया था। साथ में इ आर पी पैक्स कम्प्यूटराईजेशन में रियल टाइम में अग्रणी रहने वाले प्राथमिक कृषि साख सहकारी समिति अमोदी के समिति प्रबंधक व सहकारी समिति कर्मचारी संघ बलौदाबाजार-भाटापारा के जिलाध्यक्ष मनीराम कैवर्त, प्राथमिक कृषि साख सहकारी समिति कसडोल के समिति प्रबंधक किशन पटेल, प्राथमिक कृषि साख सहकारी समिति कटगी के संबल वर्मा ,प्राथमिक कृषि साख सहकारी समिति छेछर के राजेंद्र वर्मा भी कार्यक्रम में शामिल हुए। जो पूरे कसडोल क्षेत्र के लिए गर्व की बात है। इस सम्मान से पूरे क्षेत्र में हर्ष का माहौल है। श्री कैवर्त्य की इस उपलब्धि पर सहकारी समिति छरछेद अध्यक्ष रामकुमार साहू, भरथरी कैवर्त्य, जीवन लाल कैवर्त्य, दशरथ कैवर्त्य, सुरेश कुमार यादव, अजय साहू, मनोहर कैवर्त्य, खुशाल दास मानिकपुरी, अश्वनी साहू सहित समिति के कर्मचारी गण एवं ग्रामीणों ने बधाई एवम् शुभकामनाएं दी है।

शिक्षा के क्षेत्र में उत्कृष्ट योगदान के लिए डेमेश्वरी सम्मानित

महासमुंद, 16 अगस्त (देशबन्धु)। स्वतंत्रता दिवस के मुख्य समारोह में स्थानीय शासकीय अभ्यास प्राथमिक शाला की प्रधान पाठक श्रीमती डेमेश्वरी गजेंद्र को शिक्षा के क्षेत्र में उत्कृष्ट योगदान के लिए जिला प्रशासन की ओर से सम्मानित किया गया। जिला स्तरीय कार्यक्रम में मुख्य अतिथि सांसद रूपकुमारी चौधरी थीं । मौके पर कलेक्टर विनय कुमार लंगेह और पुलिस अधीक्षक आशुतोष सिंह विशेष रूप से मौजूद रहे। डेमेश्वरी को यह सम्मान विद्यालय के शैक्षणिक स्तर को ऊंचा उठाने, विद्यार्थियों की रचनात्मक गतिविधियों को प्रोत्साहित करने और समुदाय के साथ सक्रिय जुड़ाव स्थापित करने में अहम भूमिका निभाई के कारण प्रदान किया गया है। उनके प्रयासों से विद्यालय ने कई शैक्षणिक व सह.पाठ्यक्रम क्षेत्रों में उपलब्धियां हासिल की हैं।

कार्यालय कार्यपालन अभियंता

लोक निर्माण विभाग नारायणपुर संभाग नारायणपुर

ज्ञापन क्र./3283/मु.लि./2025-26 नारायणपुर, दिनांक 13.08.2025

भावपत्र आमंत्रण (तृतीय आमंत्रण)

लोक निर्माण विभाग नारायणपुर संभाग अंतर्गत वित्तीय वर्ष 2025-26 में आम सभा, व्ही.आई.पी. इत्यादि कार्यक्रमों में उपयोग होने वाले टेंट पण्डाल, मंच और अन्य व्यवस्था की सामग्रियों के भावपत्र रजिस्टर्ड/स्पीड पोस्ट के द्वारा बंद लिफाफे में आमंत्रित की जाती है। इच्छुक योग्य टेंट हाउस प्रतिष्ठान निम्नानुसार तिथि में आवेदन प्रस्तुत कर सकते हैं, विवरण निम्नानुसार है:-

1. आवेदन प्रस्तुत करने की तिथि - 22.08.2025
2. दर प्रस्तुत करने की तिथि - 27.08.2025
3. दर खोलने की तिथि - 29.08.2025

आवेदन पत्र के साथ निम्नानुसार दस्तावेज/प्रमाण पत्र की प्रति प्रस्तुत करना आवश्यक होगा।

आवश्यक अर्हताएं:-

1. टेंट हाउस प्रतिष्ठान के मालिकाना तथा लाइसेंस की प्रति होना चाहिये।
2. जी.एस.टी. की जीवित पंजीयन प्रमाण पत्र।
3. टेंट हाउस प्रतिष्ठान का विगत 03 वर्षों में टेंट हाउस कार्यक्रम संपादन का औसत वार्षिक टर्न ओवर कम से कम रू.50.00 लाख होना आवश्यक है। तत्संबंध में प्रमाण-पत्र प्रस्तुत करना होगा।
4. विगत 03 वर्षों में छ.ग. राज्य में संपादित महत्वपूर्ण कम से कम 03 व्ही.आई.पी. (राज्यपाल, मुख्यमंत्री) कार्यक्रम संपादित किये जाने का प्रमाण पत्र जिसमें प्रति कार्य में लागत कम से कम रू. 30.00 लाख होने का अनुभव प्रमाण-पत्र, जो कार्यपालन अभियंता/समकक्ष अथवा उच्च अधिकारी से हस्ताक्षरित हो।

विस्तृत शर्तें किसी भी कार्य दिवस में अधोहस्ताक्षरकर्ता के कार्यालय में कार्यालयीन अवधि पर देखा जा सकता है।

कार्यपालन अभियंता
लो.नि.वि.(भ.स.) संभाग
नारायणपुर (छ.ग.)

जी-252602814

शमक्ष श्रीमान पब्लिक नोटरी महोदय (छ.ग.)

:: नाम परिवर्तन / शपथपत्र ::

मैं शपथकर्ता सेनासंख्या - 15203726K पूर्वसैनिक गनर (एमएसीपी नायक) GNR (MACP NK) केवल प्रसाद (KEWAL PRASAD) पिता - श्री पवन कुमार (PAWAN KUMAR), निवासी - HOUSE NO - 41/C STREET NO - 35, SECTOR - 06 BHILAI, DIST - DURG, CHHATTISGARH - 490006 का हूं, जो की निम्नलिखित कथन शपथ पूर्वक प्रस्तुत करता हूं।

(अ) यह कि मैं उपरोक्त पते पर निवास करता हूं।

(ब) यह कि मैं पूर्वसैनिक गनर (एमएसीपी नायक) GNR (MACP NK) केवल प्रसाद (KEWAL PRASAD) पिता - श्री पवन कुमार (PAWAN KUMAR) हूं, सेना के सभी दस्तावेजों में मेरी माता का नाम - नालंदा बाई (NALANDA BAI) दर्ज हो गया है जो की त्रुटी पूर्ण एवं गलत है।

(स) यह कि सेना के सभी दस्तावेजों में मैं अपनी माता का सही नाम - नालंदा साहू (NALANDA SAHU) दर्ज कराना चाहता हूं जो भारत सरकार के द्वारा बनाये गए आधार कार्ड क्रमांक - 9565 8822 1403, पेन कार्ड क्रमांक - AYAPN0982G के अनुसार सत्य एवं वास्तविक है।

(द) यह कि सेना के दस्तावेजों में दर्ज नाम - नालंदा बाई (NALANDA BAI) व उपरोक्त दस्तावेजों में दर्ज नाम - नालंदा साहू (NALANDA SAHU) दोनों एक ही महिला का नाम है जो मेरी माता है अब मे मेरी माता - नालंदा साहू (NALANDA SAHU) पति - श्री पवन कुमार (PAWAN KUMAR) के नाम मे जानी व पहचानी जाएगी, जिसके समर्थन में यह शपथ पत्र श्री मान शक्षम अधिकारी के शमक्ष प्रस्तुत है।

शपथकर्ता
सेनासंख्या - 15203726K
पद - गनर (एमएसीपी नायक)
EX GNR (MACP NK)
नाम - कैवल प्रसाद (KEWAL PRASAD)

शमक्ष श्रीमान पब्लिक नोटरी महोदय (छ.ग.)

:: नाम परिवर्तन / शपथपत्र ::

मैं शपथकर्ता सेनासंख्या - 8035444A पूर्वसैनिक लांसनायक (LNK) नन्द कुमार (NAND KUMAR) पिता - श्री सुरेश प्रसाद (SURESH PRASAD), निवासी - HOUSE NO - 462 WARD NO - 23, SHARDPARA NAHARPAR SECTOR - 01 BHILAI, DIST - DURG, CHHATTISGARH - 490001 का हूं, जो की निम्नलिखित कथन शपथ पूर्वक प्रस्तुत करता हूं। (अ) यह कि मैं उपरोक्त पते पर निवास करता हूं। (ब) यह कि मैं पूर्वसैनिक लांसनायक (LNK) नन्द कुमार (NAND KUMAR) पिता - श्री सुरेश प्रसाद (SURESH PRASAD) हूं, सेना के सभी दस्तावेजों में मेरी माता का नाम - सुजाथा देवी (SUJATHA DEVI) दर्ज हो गया है जो की त्रुटी पूर्ण एवं गलत है। (स) यह कि सेना के सभी दस्तावेजों में मैं अपनी माता का सही नाम - सुरजावती देवी (SURJAVATI DEVI) दर्ज कराना चाहता हूं जो भारत सरकार के द्वारा बनाये गए आधार कार्ड क्रमांक - 6987 8750 6102, पेन कार्ड क्रमांक - CECPD1975F के अनुसार सत्य एवं वास्तविक है। (द) यह कि सेना के दस्तावेजों में दर्ज नाम - सुजाथा देवी (SUJATHA DEVI) व उपरोक्त दस्तावेजों में दर्ज नाम - सुरजावती देवी (SURJAVATI DEVI) दोनों एक ही महिला का नाम है जो मेरी माता है अब से मेरी माता - सुरजावती देवी (SURJAVATI DEVI) पति - श्री सुरेश प्रसाद (SURESH PRASAD) के नाम से जानी व पहचानी जाएगी, जिसके समर्थन में यह शपथ पत्र श्री मान शक्षम अधिकारी के शमक्ष प्रस्तुत है।

शपथकर्ता
सेनासंख्या - 8035444A
पूर्वसैनिक - लांसनायक (LNK)
नाम - नन्द कुमार (NAND KUMAR)

HIRA

ALOK FERRO ALLOYS

मेसर्स आलोक फेरो अलॉयज लिमिटेड

प्लाट नं. 458/1, 459, उरला इंडस्ट्रियल एरिया,
उरला, जिला रायपुर छत्तीसगढ़ 492003

पर्यावरण स्वीकृति बाबत आम सूचना

एतद द्वारा सर्वसाधारण को सूचित किया जाता है, कि भारत सरकार, पर्यावरण वन जलवायु परिवर्तन मंत्रालय नई दिल्ली द्वारा जारी ई.आई.ए. नोटिफिकेशन 2006 (यथा संशोधित) के अंतर्गत File No. : IA-J-11011/97/2024-IA-II(Ind-I) दिनांक 01.08.2025 के द्वारा हमारे प्लांट मेसर्स आलोक फेरो अलॉयज लिमिटेड,प्लाट नं. 458/1, 459, उरला इंडस्ट्रियल एरिया, उरला जिला रायपुर - 492003 छत्तीसगढ़ में, उद्योग द्वारा क्षमता विस्तार के तहत स्थापित फर्नेस _SAF (3 x 4.5 MVA) द्वारा फेरो अलॉयज उत्पादन क्षमता SiMn - 14,496 TPA से 19,000 TPA और/या FeMn - 14,496 TPA से 28,000 TPA और/ या प्रस्तावित FeSi - 9,000 TPA और/या Pig Iron - 28,500 TPA और प्रस्तावित फेरो मेल्ट इंडक्शन फर्नेस (1500 KW/2100 Kg) द्वारा फेरो अलॉयज (SiMn/FeMn) - 6,000 TPA के प्रस्तुत परियोजना हेतु पर्यावरण स्वीकृति प्रदाय किया गया है I जिसकी प्रति भारत सरकार, पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय नई दिल्ली कि वेबसाइट https://parivesh.nic.in/ पर उपलब्ध है तथा प्रतिलिपि सदस्य सचिव, छत्तीसगढ़ पर्यावरण संरक्षण मंडल तथा क्षेत्रीय कार्यालय, छत्तीसगढ़ पर्यावरण संरक्षण मंडल, रायपुर छत्तीसगढ़ को अवलोकनार्थ प्रस्तुत है।

स्थान - रायपुर
दिनांक -
महाप्रबंधक

न्यायालय-आयुक्त कर्मचारी प्रतिकर अधिनियम सह श्रम न्यायालय बलौदाबाजार छ.ग. पीठासीन अधिकारी राकेश कुमार वर्मा उपस्थिति हेतु संमंस

आदेश 05 नियम 20 व्यवहार प्रक्रिया संहिता
प्रकरण क्रमांक 10/2020, कर्मचारी प्रतिकर अधिनियम
पेशी तारीख 08.09.2025 प्रो.क्रं. 37/2025

प्रति,

श्रीमती रंजना साहू पति नीलमणि साहू 48 वर्ष निवासी पारस नगर कसडोल थाना कसडोल जिला बलौदाबाजार छ.ग., श्रीमती तीजन बाई वगैरह बनाम चमन लाल साहू वगैरह, आवेदिका तीजन बाई बेवा कल्याण सागर चौहान उम्र 28 वर्ष अन्य 03 सभी निवासी ग्राम हटौद थाना कसडोल जिला बलौदाबाजार भाटापारा छ.ग. आप अनावेदक के विरूद्ध प्रकरण क्रमांक 10/ई.सी.एक्ट/2020 धारा 04, 10 एवं 12 कर्मचारी प्रतिकर अधिनियम वास्ते क्षतिपूर्ति प्राप्त करने बाबत आवेदन पेश किया है। आप अनावेदक इस न्यायालय में नियत तारीख 08.09.2025 के दावे के उत्तर देने के लिए उपस्थित होने के लिए नोटिस जारी किया जाता है। इससे संबंधित स्वयं या किसी ऐसे वकील द्वारा उपस्थित हो जिसे तत्संबंध में अनुदेश दिये गये हो और इस दावे से संबंधित सारवान प्रश्नों के उत्तर सकें। आप अनावेदक को यह निर्देश दिये जो रहे है कि आप इन सब दस्तावेज को जो आपके कब्जे या शक्ति में हो पेश करें। जिन पर आपको प्रतिरक्षा या मुजराई दावा या दावा आधारित है। यदि आप किसी अन्य दस्तावेजों पर चाहे वह अपने कब्जें में हो या अपना प्रतिरक्षा या मुजराई को दावे या प्रतिदावे के समर्थन में साक्ष्य के रूप में हो विसरत करते हुए आप ऐसे दस्तावेज का लिखित कथन के साथ उपलब्ध कराये जाने वाली सूची में प्रविष्ट करें। आपको सूचित किया जाता है कि यदि उपर वर्णित की गई पेशी तारीख 08.09.2025 को इस न्यायालय में उपस्थित नही होंगे तो वाद की सुनवाई और उसका निपटारा आपकी अनुपस्थिति में किया जावेगा।

टीप:- यदि किसी कारणवश उक्त पेशी तारीख 08.09.2025 को सार्वजनिक/स्थानीय अवकाश घोषित हो जाता है अथवा किसी कारणवश कार्य स्थगित हो जाता है तो आगामी तिथि पर प्रकरण की सुनवाई होगी।

आज दिनांक 05.08.2025 को मेरे हस्ताक्षर और न्यायालय की मुद्रा लगाकर दिया गया।

(राकेश कुमार वर्मा)
आयुक्त, कर्मचारी प्रतिकर अधिनियम
(मुहर) श्रम न्यायालय बलौदाबाजार (छ.ग.)

शमक्ष श्रीमान पब्लिक नोटरी महोदय (छ.ग.)

:: नाम परिवर्तन / शपथ पत्र ::

मैं शपथकर्ता सेनासंख्या - 4041117 पूर्वसैनिक सिपाही (SEP) मंगल सिंह रावत (MANGAL SINGH RAWAT) पिता - स्वर्गीय श्री बलबीर सिंह (LATE BALBIR SINGH) निवासी - HOUSE NO - 623 STREET NO - 07 SHANTI NAGAR, SUPELA BHILAI DIST - DURG CHHATTISGARH - 490023 का हूँ, जो की निम्नलिखित कथन शपथपूर्वक प्रस्तुत करता हूँ। (अ) यह कि मैं उपरोक्त पते पर निवास करता हूँ। (ब) यह कि मैं पूर्वसैनिक सिपाही (SEP) मंगल सिंह रावत (MANGAL SINGH RAWAT) पिता - स्वर्गीय श्री बलबीर सिंह (LATE BALBIR SINGH) हूँ, सेना के सभी दस्तावेजों में मेरी पत्नी का नाम - देविश्वरी देवी (DEVISHWARI DEVI) दर्ज हो गया है जो कि त्रुटी पूर्ण एवं गलत है। (स) यह कि सेना के सभी दस्तावेजों में मैं अपनी पत्नी का सही नाम - देवेश्वरी रावत (DEVESHWARI RAWAT) दर्ज कराना चाहता हूँ जो कि भारत सरकार के द्वारा बनाये गए आधार कार्ड क्रमांक - 9828 0960 3138, पेन कार्ड क्रमांक - HSVPR4737M एवं पंजाब नेशनल बैंक पेंशन खाता क्रमांक - 0076000302448204 के अनुसार सत्य एवं वास्तविक है। (द) यह कि सेना के दस्तावेजों में दर्ज नाम - देविश्वरी देवी (DEVISHWARI DEVI) व उपरोक्त दस्तावेजों में दर्ज नाम - देवेश्वरी रावत (DEVESHWARI RAWAT) दोनों एक ही महिला का नाम है जो मेरी पत्नी है। (य) यह कि मैं सेना के सेवा पुस्तिका में अपनी पत्नी का नाम - देविश्वरी देवी (DEVISHWARI DEVI) के स्थान पर भारत सरकार द्वारा जारी आधार कार्ड एवं पेन कार्ड के अनुसार दर्ज सत्य एवं वास्तविक नाम - देवेश्वरी रावत (DEVESHWARI RAWAT) दर्ज करने के समर्थन में यह शपथ पत्र श्रीमान शक्षम अधिकारी के शमक्ष प्रस्तुत हैं।

शपथकर्ता
सेनासंख्या - 4041117
पद - सिपाही (EX SEP)
नाम - मंगल सिंह रावत
(MANGAL SINGH RAWAT)

आम सूचना

सर्वसाधारण को सूचित किया जाता है कि ग्राम हरदीडीह तहसील आरंग जिला रायपुर छ.ग. में पंजीयन क्षेत्र आरंग, जिला रायपुर में प.ह.नं. 16 राजस्व निरीक्षक मंडल समोदा के खसरा क्रमांक 341, रकबा 1.22 हे. कृषि भूमि स्थित है। जो पक्षकार ओमकार वंशे पिता श्री आजूराम वंशे निवासी समोदा वार्ड नं. 01 तहसील आरंग जिला रायपुर छ.ग. के नाम पर दर्ज है। उक्त कृषि भूमि खसरा नं. 341 के भाग 520X50 वर्ग कड़ी पर रेत घाट जाने हेतु अनाधिकृत मार्ग निर्मित कच्चा रास्ता है जिस पर तार घेरा कराना चाहता है।

अतएव जिस किसी भी व्यक्ति/संस्था, शासकीय/अर्द्धशासकीय संस्

Annexure XXXXII: Submission to Nagar Nigam

HIRA

ALOK FERRO ALLOYS

01

COPY

AFAL/ENV/25-26/136

DATE: - 28.08.2025

प्रति,
आयुक्त महोदय जी
नगरपालिक निगम बीरगांव
जिला-रायपुर, छत्तीसगढ़

विषय: **मेसर्स आलोक फेरो एलॉयस लिमिटेड द्वारा फेरो एलॉयस उत्पादन क्षमता में विस्तार हेतु पर्यावरणीय स्वीकृति की प्रति प्रस्तुत करने बाबत ।**

सन्दर्भ : **पर्यावरणीय स्वीकृति File No: IA-J-11011/97/2024-IA-II(Ind-I) दिनांक 01.08.2025**

आदरणीय महोदय,

उपरोक्त विषयान्तर्गत ,आपको सूचित किया जाता है कि भारत सरकार, पर्यावरण वन जलवायु परिवर्तन मंत्रालय द्वारा जारी ई.आ.ए नोटिफिकेशन 2006 (यथा-संशोधित) के अंतर्गत **File No: IA-J-11011/97/2024-IA-II (Ind-I) दिनांक 01.08.2025** के द्वारा हमारे प्लांट मेसर्स आलोक फेरो एलॉयस लिमिटेड, प्लाट नंबर 458/1, 459, उरला इण्डस्ट्रीयल एरिया, ग्राम-अछोली, जिला-रायपुर (छ.ग.) में स्थापित परियोजना में क्षमता विस्तार के तहत स्थापित फर्नेस (3 x 4. 5 MVA) में हाई ग्रेड मटेरियल का उपयोग और प्रस्तावित फर्नेस मेल्ट इंडक्शन फर्नेस (1500. KW/2100 Kg) और फेरो एलॉयस उत्पादन क्षमता में विस्तार - SiMn- 14,496 TPA से 19,000 TPA या FeMn- 14,496 TPA से 28,000 TPA या प्रस्तावित Pig Iron – 28,500 TPA और/या FeSi 9,000 TPA और प्रस्तावित फेरो मेल्ट इंडक्शन फर्नेस द्वारा फेरो एलॉयस (SiMn/ FeMn)- 6000 TPA प्रस्तुत परियोजना हेतु पर्यावरण स्वीकृति प्रदाय किया गया है । जिसकी प्रतिलिपि आपके समक्ष अवलोकनार्थ प्रस्तुत है । तथा इसकी मूल प्रति पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय के वेबसाइट https://parivesh.nic.in/ पर उपलब्ध है, तथा प्रतिलिपि सदस्य सचिव, छत्तीसगढ़ पर्यावरण संरक्षण मंडल तथा क्षेत्रीय कार्यालय, छत्तीसगढ़ पर्यावरण संरक्षण मंडल रायपुर छत्तीसगढ़ अवलोकनार्थ प्रस्तुत है।

यह आपकी जानकारी और अभिलेख के लिए है, और कृपया इसकी प्राप्ति की पावती देने की कृपा करें।

"धन्यवाद"

भवदीय

वास्ते, आलोक फेरो एलॉयस लिमिटेड

अधिकृत हस्ताक्षरकर्ता

ALOK FERRO ALLOYS LTD. HIRA RAIPUR (C.G.)

नगरपालिक निगम, बीरगांव ★ जिला-रायपुर (छ.ग.) 29/08/25

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