

ENVIRONMENT AUDIT REPORT

FOR THE YEAR

2023-24

FOR

RAMA UDYOG PRIVATE LIMITED

LIMAHAI ROAD-INDUSTRIAL AREA

SILTARA-PHASE-II RAIPUR CHHATTISGARH



PREPARED BY



We The Environment Patronage

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ILKA TECH PRIVATE LIMITED

Sai Villas 02, Raipur-Bhilai Expressway Road,

NH6, Durg, CHHATTISGARH

Promoters Details

Mr. Sanjay Goyal aged about 51 years is qualified Engineer hails from Satna (M.P.). After completion of education, he joined the steel trading business of the family in the name and style of Ram Kumar Suresh Kumar. Three decades ago, the firm was of India fame in the area of steel trading. Later on, the trading business of same was diverted in the name and style of RKSK STEEL (INDIA) PVT LTD. In the year 2010 the Mr. Goyal has decided to enter into manufacturing activity and has acquired fully automatic Rolling mill at Raipur in the name of Rama Power and Steel Private Limited and same is running at 100% capacity utilization. Later on, to further strengthen the business activity Mr. Goyal in the year 2015 has acquired Integrated Steel Plant Consisting of DRI, CPP and SMS in the name of Rama Udyog Pvt. Ltd.

Mr. Suresh Kumar Goyal aged about 48 years is a Bachelor degree in commerce. He is the promoter director of the company. He belongs to reputed business family in Satna. He has more than 26 years of experience in steel trading and manufacturing. Apart from that he also has the expertise in steel related plant and machinery.

INTRODUCTION

Rama Udyog Pvt. Ltd. was incorporated with Registrar of Company (CG) on 11.03.2016 as Private Limited Company. The Group is engaged in the business of steel products such as Sponge Iron, Power, MS Billets, Structural Steel and TMT. The product is manufactured by using world class Thermax Technology.

The promoters of the company are Mr. Sanjay Goyal and Mr. Suresh Kumar Goyal who are the reputed industrialist in secondary steel manufactures in Madhya Pradesh & Chhattisgarh. The registered office of the company is located at 18th Milestone, SKS Road, Siltara Industrial Growth Centre Phase- II, Siltara Raipur 493111.

Rama Udyog is planning for expansion of existing plant capacity, the proposal is Brownfield project for expansion of production facilities for Sponge Iron; MS Billet, Steel Rerolled products production facilities. Existing DRI Kilns i.e., 4 No. of 50 TPD will be proposed with 2no. of 100 TPD in new setup. In total, unit after capacity configuration resulting into expansion of Sponge Iron Kiln will consist of 2 Nos. of DRI Kilns i. e 2 Nos. of 100 TPD making total 200 TPD Sponge Iron productions along with 6 MW WHRB and BIO MASS BASED 6MW and 2MW AFBC.

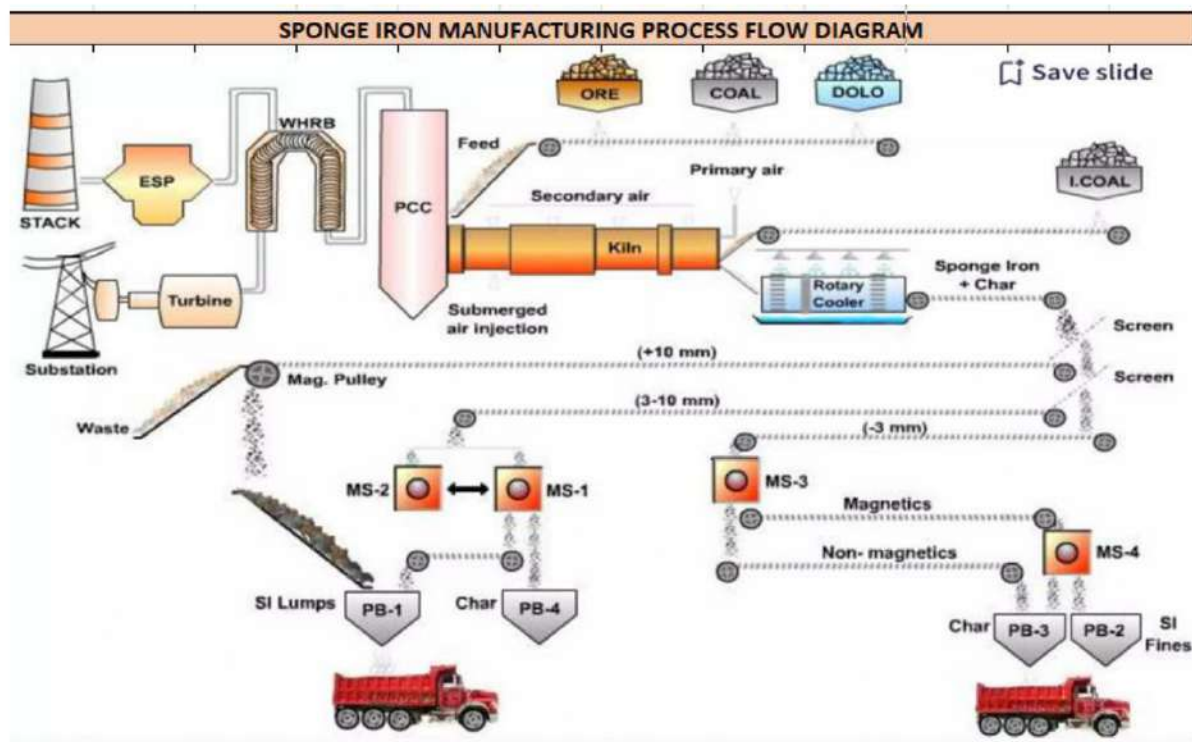
Geographical Location of Rama Udyog private Limited

SI No	Components	Description
1	Plant Location	Kh.No. – 114/(10-12), Siltara, Phase –II, Raipur, Chhattisgarh
2	Village/District/State	Siltara / Raipur / Chhattisgarh
3	Total Plant Area	37.13 Acres
4	Maximum temperature	46 deg Cel (peak summer)
5	Minimum temperature	7.0 deg cel (peak winter)
6	Annual rainfall (total)	Avg annual rainfall is 1252.8 mm
7	Nearest highway	NH30
8	Nearest Railway Station	Mandhar Railway Station – Road distance – 12.6 km Junction - Raipur railway station, distance approx 15 km through NH30
9	Nearest Airport	Swami Vivekananda Airport, Distance approx.. 35 km
10	Nearest major water bodies	Kharun River
11	Nearest town/City	Raipur
12	Nearest village	Siltara
13	Protected areas as per Wildlife Protection Act, 1972 (Tiger reserve, Elephant reserve, Biospheres, National parks, Wildlife sanctuaries, community reserves and conservation reserves)	Not Available within 10 km





DRAWING DIAGRAM OF PROCESS FLOW OF SPONGE IRON WITH WHRB



ENVIRONMENT AUDIT REPORT 2022-23

PART A

1 Name of Industry & Location Rama Udyog Private Limited, Siltara Industrial Area, PHASE-II RAIPUR CHHATTISGARH

2 Production * SPONGE IRON PLANT : 60000 TPA Sponge Production
* CAPTIVE POWER PLANT : 2 MW
* WASTE HEAT RECOVERY SYSTEM (WHRS) : 6 MW

3 Type of Industry Medium Scale Industry

ii Red / Orange / Green / White Red

4 Product Manufactured

Name of the Product	Installed Capacity TPA	2021-2022	2022-23 F/Y Annual Production TPA	Round the clock Production	Remark
Sponge Iron	60000 TPA	56659.86 TPA	54836.7 TPA	Yes	For Sale
Power by CPP	2 MW	49102443 KWH	50090145 KWH	Yes	For Captive Use
Power by WHRS	6 MW			Yes	For Captive Use

5 Raw material Consumed Annually TPA

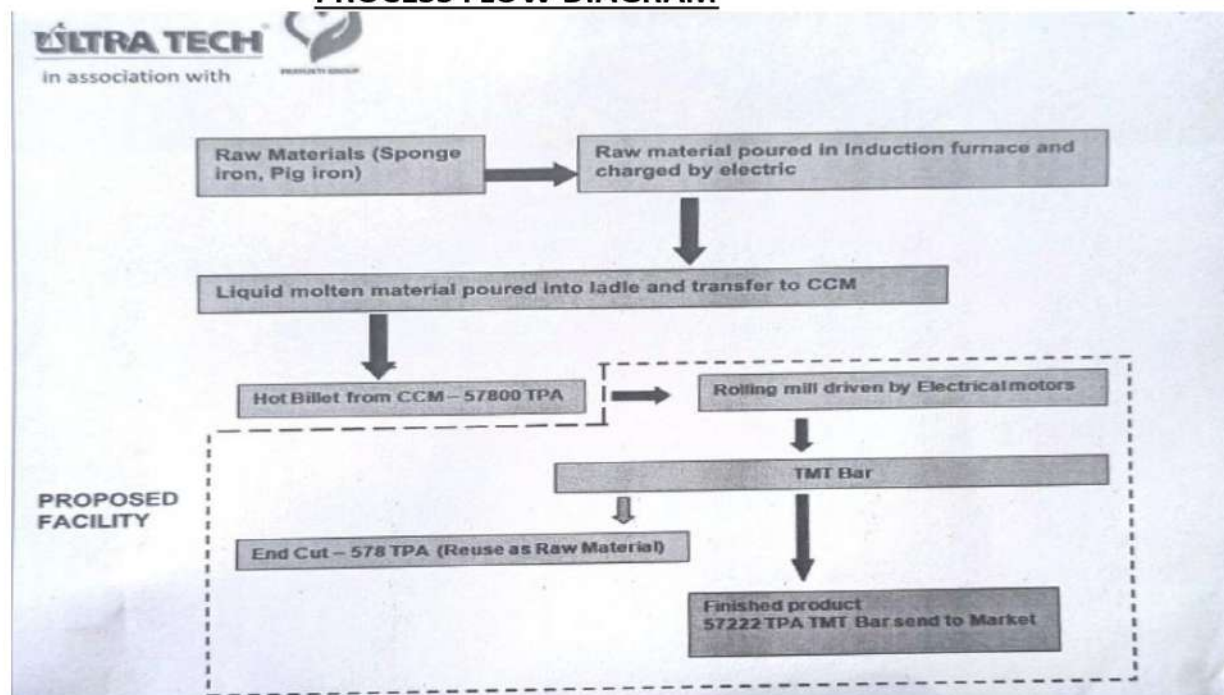
Raw Material	2021-2022	2022-2023	Storage Area
Iron Ore	79070.85	79070.85	Gantry
Coal	75476.93	75476.93	In open covered with tarpaulin
Dolomite	4916.000	4916.000	In open covered with tarpaulin

Raw Material Sourced from

Iron Ore	Coal	Dolomite
NMDC	SECL	Open Market

- 6 Detail of Manufacturing process with process flow chart showing various unit operation. Also show the point source of emissions in flow chart

PROCESS FLOW DIAGRAM



PART B

7 Water Requirement

- Industrial (Product wise)
- Domestic KLD
- Cooling KLD
- Boiler KLD
- Green Belt KLD
- Sprinkling & Dust Suppression
- Others (Specify)

Water Consumption

210 KLD

15 KLD

630 KLD

30 KLD

5 KLD

5 KLD

-

TOTAL

895 KLD

8 Waste Water Generation

S. No.	Operation where waste water Generated	Quantity Used KL / Per day
1	Effluent from Process to ETP	130.5 KLD
2	Sewage from Domestic to STP	9.0 KLD

Break up of Total Waste Water generated from Plant

a	Industrial	31.5 KLD
b.	Domestic KLD	9 KLD
c.	Cooling KLD	94.5 KLD
d.	Boiler KLD	4.5 KLD
e	Others (Specify) Process	

TOTAL	139.5 KLD
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9a Characteristics and Analysis of waste water ETP

Source of	Parameters	Characteristics
Treated Waste water from ETP	pH	8.2
	TSS	23 mg/l
	COD	52 mg/l
	BOD	16 mg/l
	Total	NA
	Iron	1.2 mg/l
	Nitrate	2.5 mg/l

9b Characteristics and Analysis of waste water STP

Source of	Parameter	After
Treated Waste water from STP	pH	7.9
	TSS	20 mg/l
	COD	15 mg/l
	BOD	25 mg/l
	O&G	Trases

10 Effluent treatment system provide

i. Describe the Effluent treatment system provided

Yes Effluent Treatment Plant and Sewage Treatment Plant installed and in operation

150 KLD Effluent Treatment Plant has been installed and is in operation. Effluent generated from Sponge Iron Process unit, Cooling Tower blow down and Boiler blown is collected ETP and is treated by dosing the chemical like Castic and hypochlorite. The same after secondary treatment is transferred from PSF and ACF for recycle within the plant.

ii Describe the Sewage treatment system provided

20 KLD STP has been installed and is in operation. The waste water generated after domestic use like Wash rooms, Wash basin and labour rest room and canteen is collected in STP and get treated by biological treatment and after settling chamber the clean water collected in dosed with Hypochlorite for chlorination and water is passed through PSF and SCF for reuse within the plant.

11 Treated Effluent Disposal

Domestic -----

Rama Udyog is very much concerned about the environment and water conservation hence treated waste water generated from STP is reused for tree plantation and Green Belt development.

Industrial -----

Rama Udyog follows Zero Discharge policy hence no water is discharged after treatment from ETP. The Industrial waste water after treatment from ETP is reused within the Sponge iron plant for sprinkling, and road washing.

12 Storm Water Drainage system :

i. Is it separate from Industrial& Domestic waste

Storm water drain within the plant is separate and not connected with industrial or Domestic waste water.

ii Describe the disposal of Storm water

The storm water drain is mainly used during rainy season, as rain water falling within the plant premises is channelled through Storm water drain.

13a Solid Waste:

Source	Waste / Composition	Quantity	Mode of Collection	Mode of Disposal
Sponge Iron Process	Slag	9890 TPA	Slag generated from Process is collected in Covered shade, and in open ground covered with Tarpaulin.	Sold to Local Cement plant for Cement manufacturing.
	Metal Waste	548.2 TPA	Metal waste generated during process is collected at designated location under store.	Sold to scrap vendors for recycle.
CPP	Fly ash	9600 TPA	Fly ash Bin through pneumatic conveyor	Fly ash is used in Brick manufacturing , a plant installed within the premises . Hence recycled back for plant use.

b Hazardous Waste & its Authorization No.

Sr. No.	Waste / Composition	Quantity	Mode of Collection	Mode of Disposal
1	Used Oil	0.5 KL per Annum	Collected in MS Drums	Sold to an Authorised recycler
2	Spent Resin	0.4 TPA	Collected in MS Drums	Sold to an Authorised recycler

PART C

14 Detail of Emission Generated:

a Process emission Unit / Product wise

Sr. no	Source / Stack	Type of Pollutants	Standard	Gas Flow Nm ³ / hr	APC Equipment	Stack Emission Concentration mg/Nm ³	Stack Height from Ground / Roof level (m)	Stack Diameter (m)
1	Kiln 1 & 2 Stack	PM	50	82740.64	ESP	42.6	45	1.5
2	Kiln 3 & 4 Stack	PM	50	87483.88	ESP	41.6	45	1.5
3	Boiler Stack	PM	50	56712.12	ESP	44.93	40	1.5
4	Billet CCM Stack	PM	50	68543.00	-	23.9	30	1.0

b Fugitive Emission Sources

Sr. No.	Fugitive Emission Source Points	Fugitive Emission Conc. TSPM ug/m ³
1	Near DRI 2 & 3	3762.5
2	Near Coal Crusher	1515.7
3	Near Furnace Area	3895.6

15 Ambient Air Quality in Factory Premises

Parameters	Concentration ug/m3 based on actual monitoring				
	Location -1 Near new Admin Building	Location -2 Near Labor Colony	Location -3 Near Hanuman Mandir	Location -4 Near Fly Ash Brick Yard	Average
PM10	63.1	60	87.2	85.2	73.88
PM2.5	38.4	47	51.7	54.1	47.80
SO2	21.7	17.8	21.4	21.5	20.30
NOx	26.5	15.6	28.7	17.3	22.03
CO	BDL	BDL	BDL	BDL	BDL

PART D

16 Details of In plant Pollution Control Measures

APCE	Number	Attached to	Efficiency
ESP	1	DRI -1	85-90%
ESP	2	DRI-2	85-90%
ESP	3	DRI-3	85-90%
ESP	4	DRI-4	85-90%
ESP	1	Boiler	85-90%

17 Ambient Noise Level Monitoring

Location	RESULTS Leq. dB (A)	
	Day	Night
Near Admin Building	69.6	54.1
Near Labor Colony	66.8	54.8

18 Details of Waste recycled / Reused

Waste water generated and got treated at ETP and STP is recycled or reused back within the plant. The quantity of waste water recycled and Reused is 139.5 KLD

19 Valid EC / Consent / Authorization

Permits	Issue / No.	Date of Issue	Validity date
Environment Clearance	191/EC/Raipur/1650	18.05.2022	—
Consent to Operate	7650/TS/CECB/2023	31.01.2023	31.07.2025
Haz. Waste Authorization	267H)/HSMD/C ECB/Raipur	01.09.2018	Five Years

20 Annual Expenses on Environment Management in Plant

Area of Expense	Running Expense 2022-23	Capital Expense
Environment Monitoring	2.0 lakhs	-
ETP Operation	6.0 lakhs	35.0 lakhs
STP Operation	3.0 lakhs	6.0 Lakhs
APC Operation	65.0 Lakhs	-
Green Belt	2.5 lakhs	15 lakhs
Housekeeping	12.0 Lalkhs	-

21 Details of Green Belt & Tree Plantation

2021-2022	2022-2023	Tree Plantation till Date
1000	1000	11200
Peltaforum, Peepal, Gulmohor, Neem, Moulshri, Kaner, Karaj, Ashok, Ber, Palm, Champa, Nilgri		

Tree Species planted :

Conclusion: Environment Audit report has been prepared by Ilka Tech Private Limited as channel partner of NOIDA Testing Laboratory, NABL approve laboratory. This report has been prepared, based on the data collected and compiled up for the year 2021-22 and 2022-23. Stack monitoring, Ambient Air Monitoring, ETP & STT treated waste water and Ambient Noise level was monitored on actual and analysis was done by NABL approved lab. All the monitoring results were within the CPCB prescribed limits. Conditions stipulated in Consent to Operate issued by CECB has been complied with. All stack area attached with APC equipment, ESP has been installed before all process stacks, Stack heights are around 45 mtrs. Waste water generated from process and canteen and labour residence area is treated in ETP and STP. The treated waste water is reused back within the plant premises for different uses hence maintain Zero Liquid Discharge. 40% of the total area of the plant has been planned to be covered under Green Belt and, tree Plantation and Landscaping. Till date 11200 no. of trees is under plantation and survived as per survey conducted, further tree saplings plantation is under process. M/s. Rama Udyog Private Limited has deep concern towards the Environment Conservation and Pollution Control along with contribution towards nation building, and always ready to comply the conditions stipulated and guidelines given by State or Central Government Environment Dept.



Authorizes Signatory
ILKA TECH PVT. LTD.