SREE METALIKS

SREE METALIKS LIMITED

Integrated Steel Plant
Rugudi, Keonjhar, Odisha

SREE METALIKS

ENVIRONMENTAL CLEARANCE COMPLIANCE

Integrated Steel plant
M/s Sree Metaliks Limited

Village – Loidapada, P.O- Guali, Dist-Keonjhar
Odisha

EC Order No. J-11011/169/2007-IA.II (I) ,
dated 01.02.2008

INTRODUCTION

SREE METALIKS

❖Sree Metaliks Ltd. (SML) incorporated on 28th November 1995 as public limited company.

❖SML has an integrated setup of mining and two manufacturing units in Keonjhar and one at Angul, Odisha.

❖The company has an steel making facilities at Loidapada (13.5 Kms from Barbil) over 29.861 Ha is under operation with OSPCB Consent Order No. 5117 dated 31.03.2023 (validity up to 31.03.2025)

- Sponge Iron = 2,64,000 TPA
- M.S Billets = 1,80,000 TPA
- Rolling Mill = 45,000 TPA
- Pig Iron = 36,000 TPA
- Fly Ash Bricks Plant = 5 Lakh/month
- CPP = 28 MW (17.7 MW WHRB +10.3 MW Coal Based)

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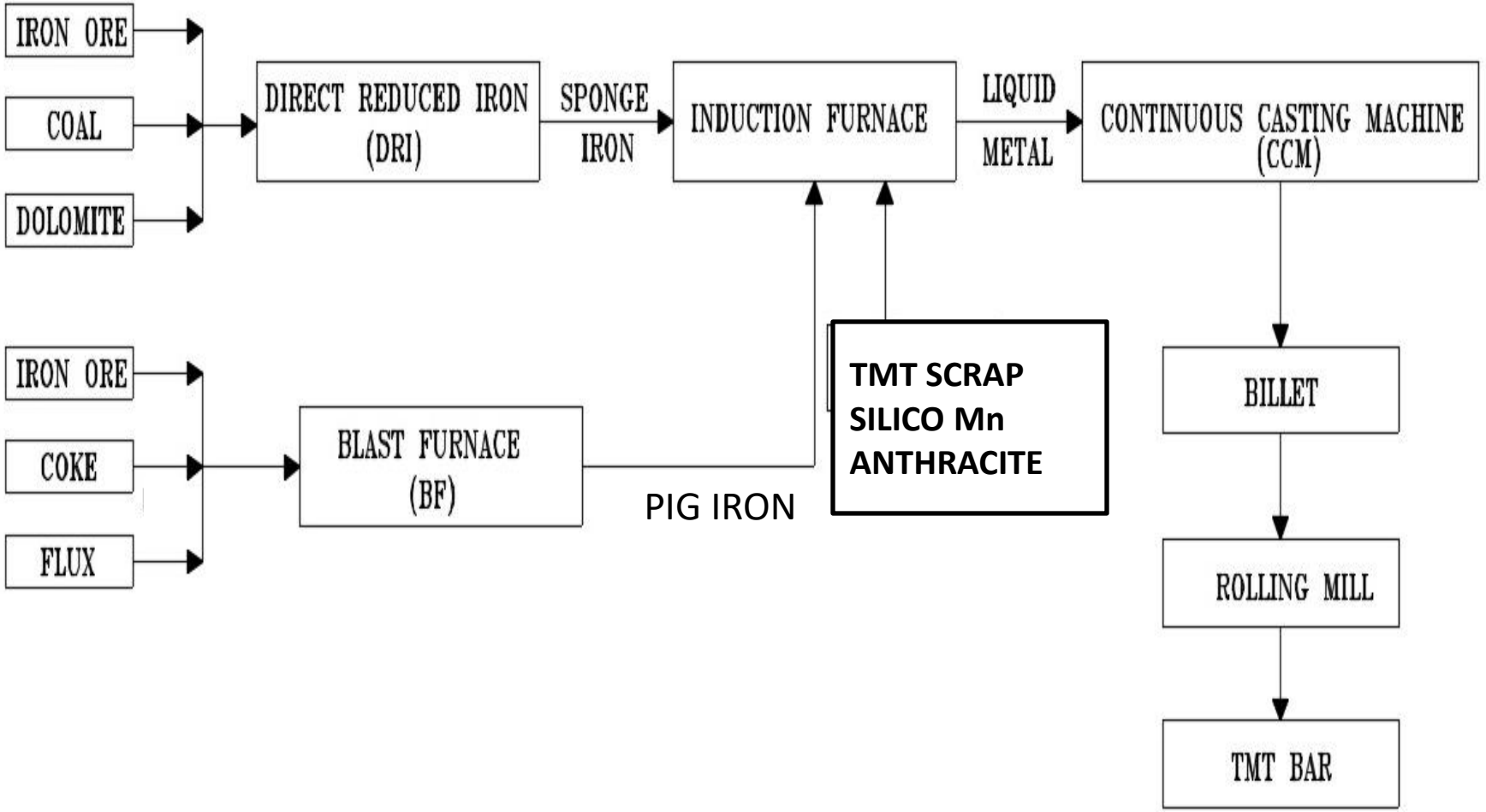
PLANT PROCESS FLOW



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SML PRODUCTS

Sponge Iron

Billets

TMT Bar

Pig Iron

Power

EXISTING PROJECT CONFIGURATION

Sponge Iron Production		
	Existing	Total Capacity
No of Rotary Kiln	07 No's	2,64,000 TPA
Capacity of Rotary Kiln	2 x 50 TPD 4 x 100 TPD 1 x 300 TPD	
Production capacity per day	800 Ton	
M.S Billets/Ignot Production		
No of Induction Furnace	09 No's	1,80,000 TPA
Melting Capacity of Induction Furnace	4 x 4 Ton 4 x 6 Ton 1 x 12 Ton	
No of Heat per Day	10	
Production capacity in tons per heat	52Ton	
No. of days operation per annum	345	
Rolling Mill		
Production Capacity (TMT Bars, Wire Rods, Flats etc.)	45,000 TPA	45,000 TPA
Blast Furnace		
Pig Iron	36,000 TPA	36,000 TPA
Fly Ash Bricks	5 Lakh/Month	5 Lakh/Month
Captive Power Plant		
Power Plant ➢ WHRB Boiler (07 No's) ➢ AFBC Boiler (01 No's)	 17.7 MW 10.3 MW	28 MW

EXISTING SURFACE PLAN

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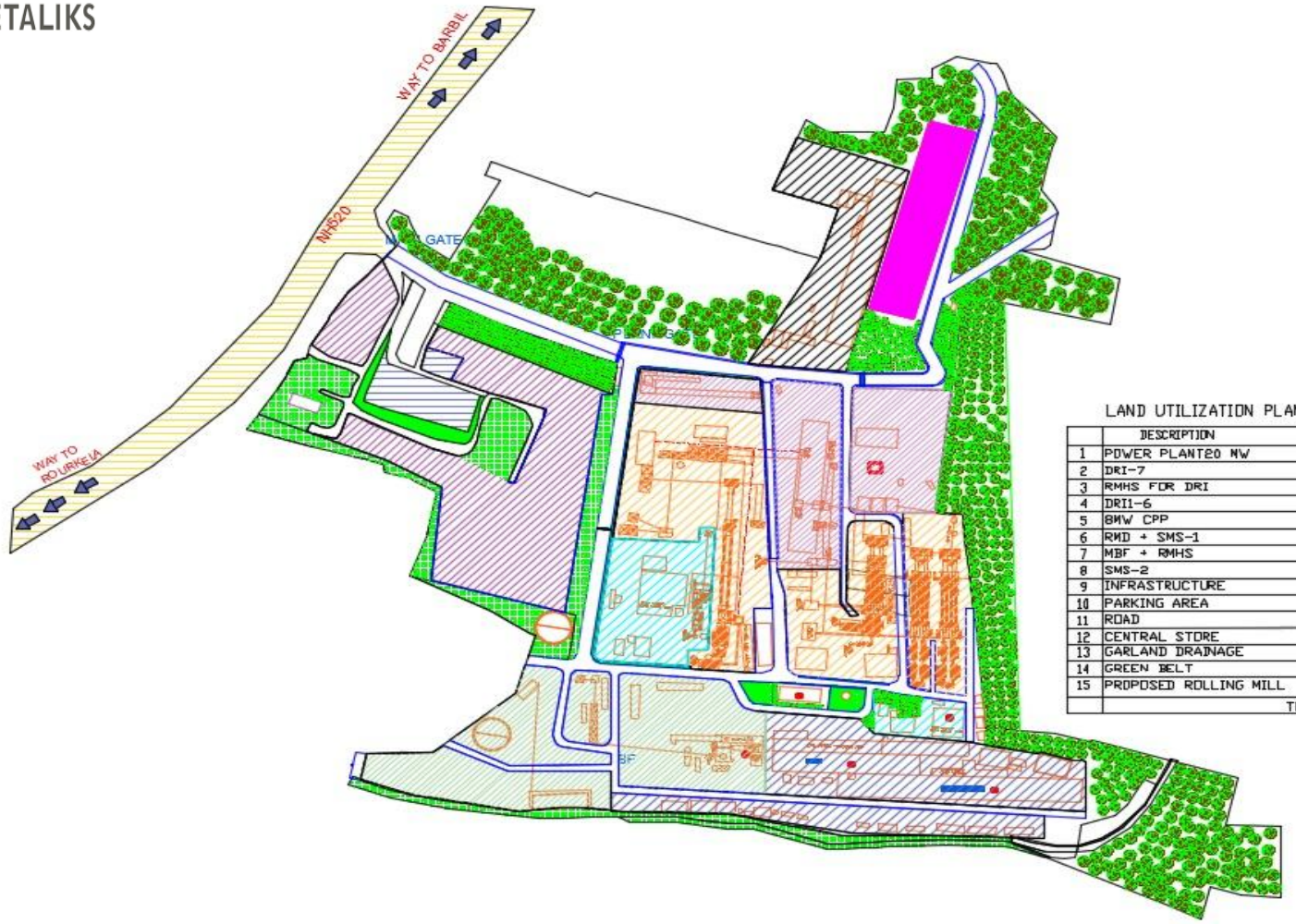

LAND UTILIZATION PLAN

	DESCRIPTION	AREA IN HECT	AREA IN %
1	POWER PLANT20 MW	0.7950	2.66
2	DRI-7	1.7034	5.70
3	RMHS FOR DRI	1.8879	6.31
4	DRI1-6	2.0275	6.8
5	8MW CPP	0.2889	0.97
6	RMD + SMS-1	2.0938	7.06
7	MBF + RMHS	1.7468	5.84
8	SMS-2	1.3015	4.5
9	INFRASTRUCTURE	2.2500	7.53
10	PARKING AREA	0.4685	1.56
11	ROAD	2.1731	7.27
12	CENTRAL STORE	0.3803	1.27
13	GARLAND DRAINAGE	0.9512	3.30
14	GREEN BELT	9.950	33.3
15	PROPOSED ROLLING MILL	1.8073	6.1
	TOTAL	29.861	100

Legend

- NEW_BOUNDARY
- INFRASTRUCTURE
- DRI
- PARKING AREA
- ROAD
- MBF
- SMS 1 RM
- SMS 2
- POWER PLANT
- plantation_area
- PROPOSED ROLLING MILL

REVIVAL OF PLANT AFTER FINACIAL CRISIS

❖With unprecedented downturn in the steel industry, the financial debt were technically overdue and the financial creditors marks the account as NPA.

❖The company was forced to approach and registered as sick unit with BIFR under the sick Industrial Companies Act (SICA), 1985 with effect from 24.11.2014.

❖Finally on 07.11.2017, the company successfully came out of the Corporate Insolvency Resolution Process (CIRP) after NCLT approved the resolution plan.

❖But, the order of NCLT was challenged by one of the financial creditor in NCLAT and finally vide order dated 13.12.2018, the resolution plan with some modification was approved by Hon'ble NCLAT and the company was finally handed over to Management.

❖ Actions were taken to restore, restart and stabilize the existing units.

VIOLATION

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EXPANSION OF ROLLING MILL (Rolling Mill – 2)
(45,000 T per annum to 1,05,000 T per annum)

❖The project proponent has constructed the Rolling Mill-2 (Rolling mill expansion) after getting CTE from SPCB, Odisha vide letter dated 23.12.2020.

❖ However, upon applying for the CTO for second Rolling Mill, SPCB, Odisha directed to take the EC from MoEF&CC, GoI.

❖Accordingly, PP has applied for EC as per the MoEF&CC notification dated 20th July 2022.

❖Rolling Mill-2 (Rolling mill expansion) has not been put into operation.

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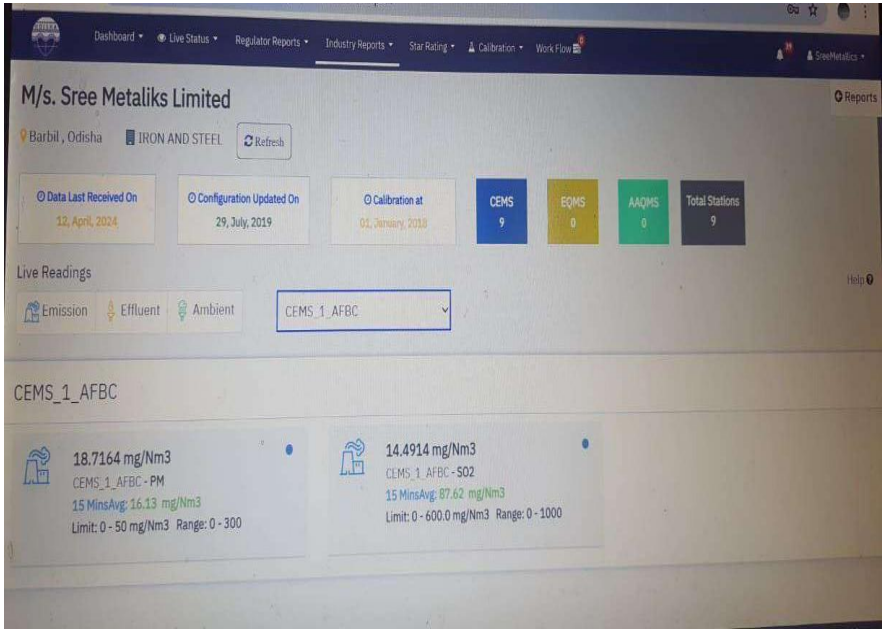
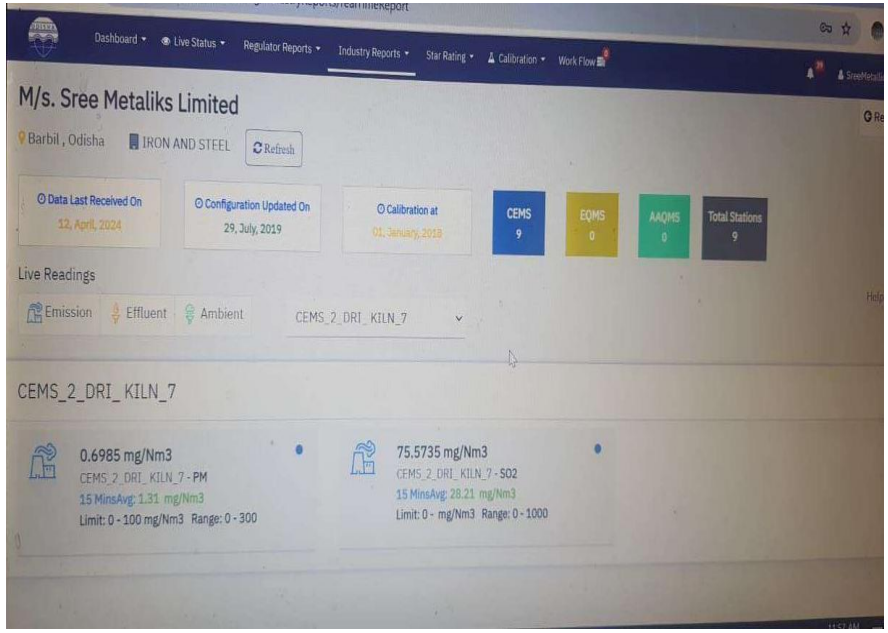
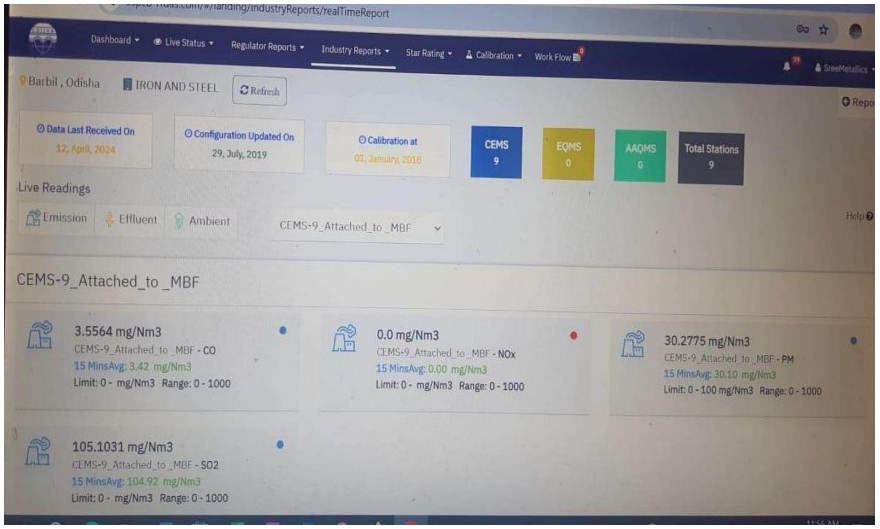
ON LINE STACK MONITORING SYSTEM

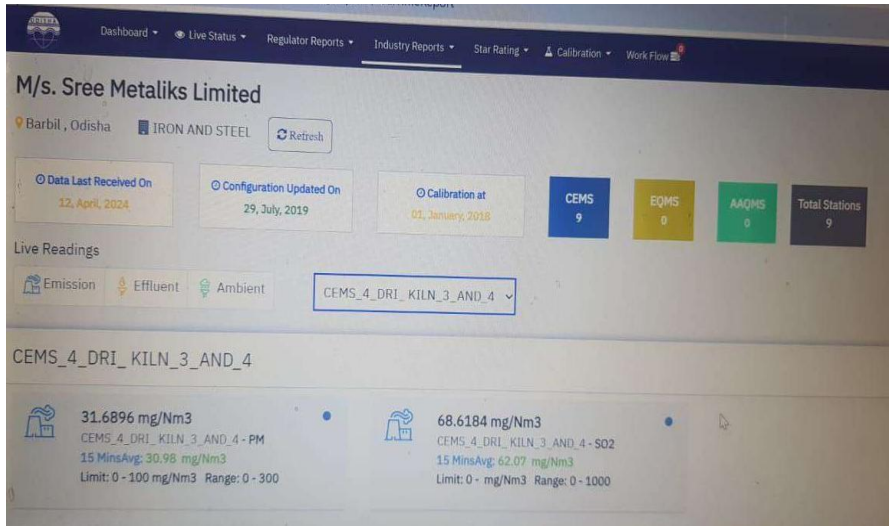
Stack No	Stack connected to	Parameters Analyze
1	DRI I & II	PM, SO_2
2	DRI III & IV	PM, SO_2
3	DRI V & VI	PM, SO_2
4	DRI VII	PM, SO_2
5	AFBC	PM, SO_2, NOx
6	MBF	PM, SO_2, NOx, CO
7	SMS1	PM
8	SMS2	PM

ON LINE STACK MONITORING PARAMETERS









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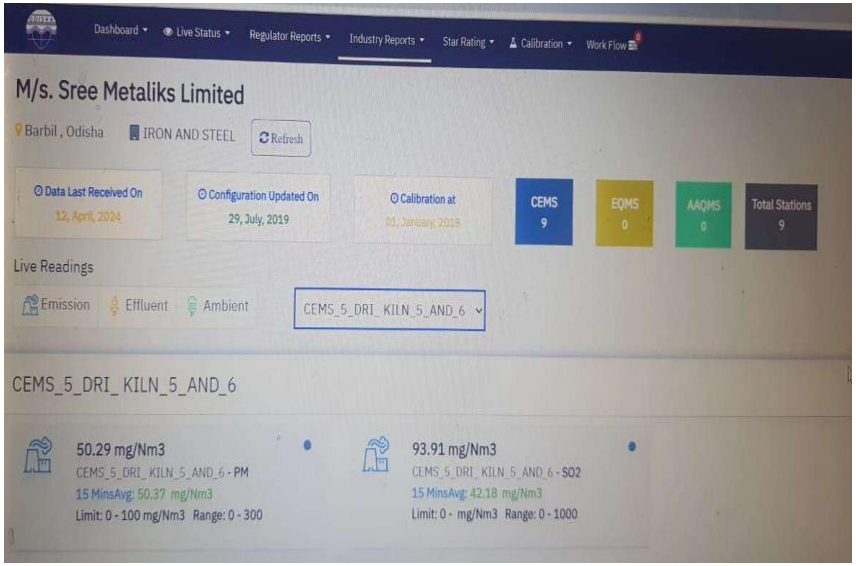

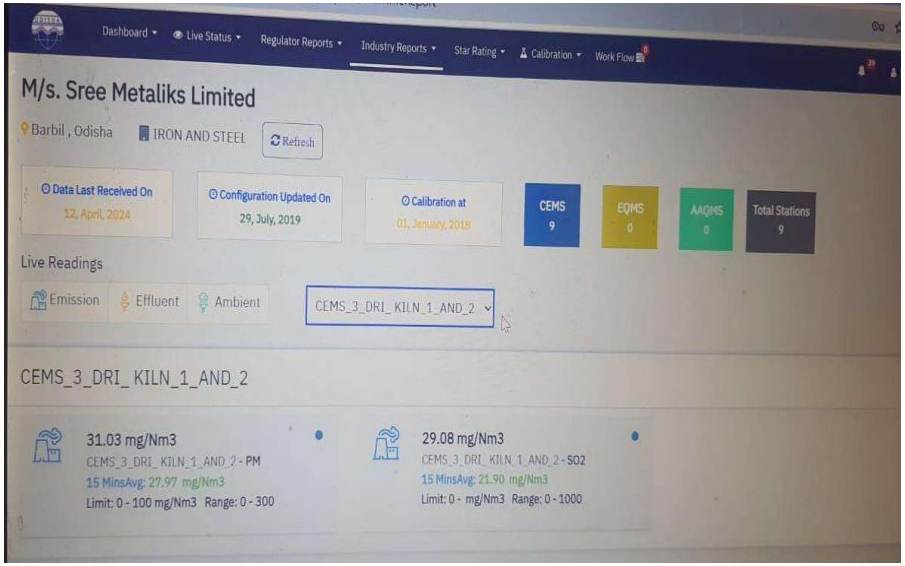

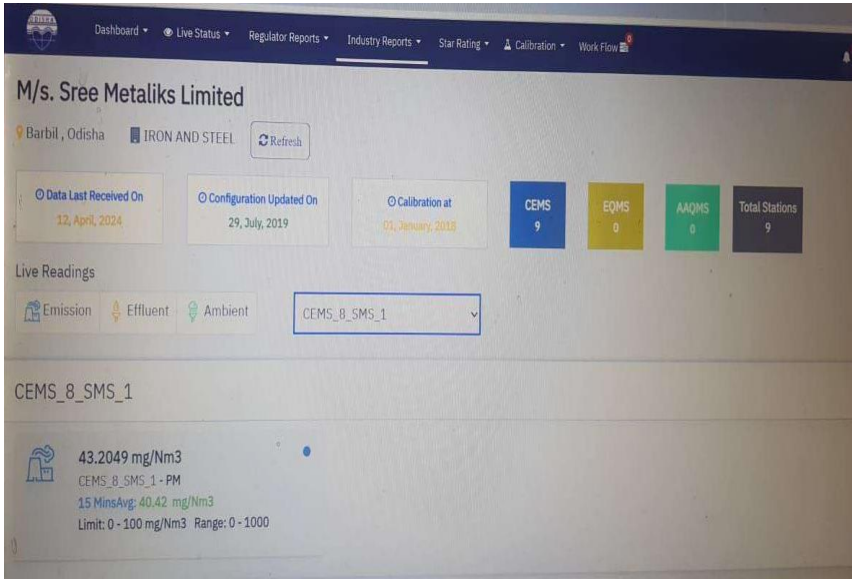

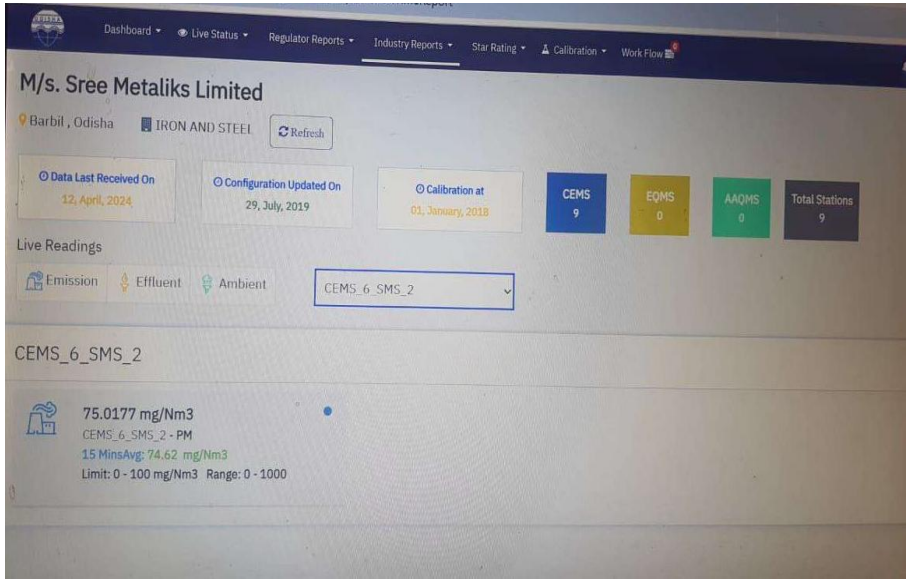

ON LINE STACK MONITORING SYSTEM

AIR POLLUTION CONTROL DEVICES & MEASURES

❖ESP and PTFE bag filters and scrubbers are attached to the stacks to arrest the dust particles. The particulate matter (PM) emissions from the stack attached to the ESP of Kilns are within the prescribed standard as per CTO. All the Air Pollution control devices are running continuously & effectively.

❖Dust catcher followed by Venturi Scrubber is provided in Blast furnace to bring down the particulate matter less than 50mg/Nm^3 .

❖Fugitive emissions from material handling, conveying and screening operations are being evacuated in closed systems.

❖Fugitive emissions are being controlled by the use of dry fogs & fog canons.

❖Rain gun for iron ore fine yards

❖Mobile vacuum cleaner is deployed to clean plant road etc. regularly.

Continued…….

AIR POLLUTION CONTROL DEVICES & MEASURES

- Fixed sprinklers on haulage road.
- Wheel washing system
- Swivelling hood for induction furnace
- Dry fogging at strategic locations
- Raw material sheds for storage
- Tarpaulin covered truck transportation

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AIR POLLUTION CONTROL DEVICES & MEASURES

Si. No	APC devices
1	ESP DRI Kiln-I & II
2	ESP DRI Kiln- III
3	ESP DRI Kiln- IV
4	ESP DRI Kiln- V
5	ESP DRI Kiln- VI
6	ESP DRI Kiln- VII
7	ESP AFBC Boiler
8	Bag Filter CHP
9	Kiln-7 Product House Bag Filter
10	Kiln-7 Stock house Bag Filter
11	Kiln-7 Cooler Bag filter
12	Kiln 1-6 Stock House Bag Filter
13	Kiln 1-2 Product House Bag Filter
14	Kiln 3-6 Product House Bag Filter
15	Kiln1-2 Cooler Bag filter
16	Kiln3-4 Cooler Bag filter
17	Kiln5-6 Cooler Bag Filter
18	Coal Circuit Bag Filter

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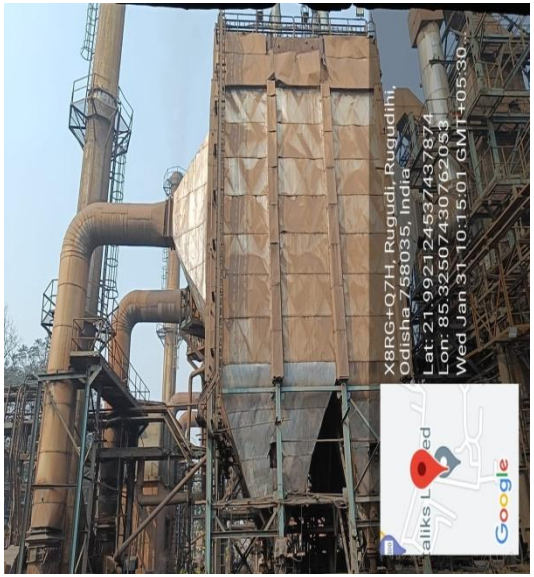
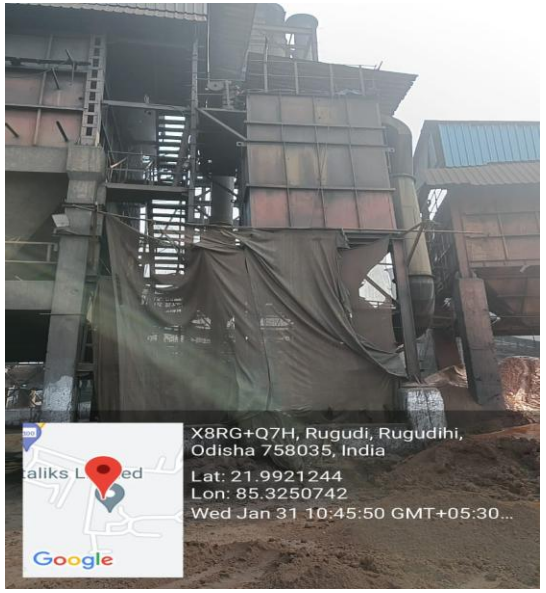
AIR POLLUTION CONTROL DEVICES & MEASURES

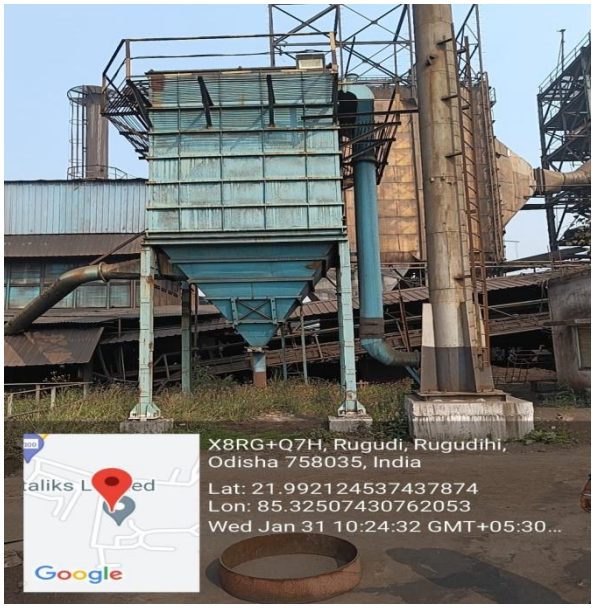
ESP

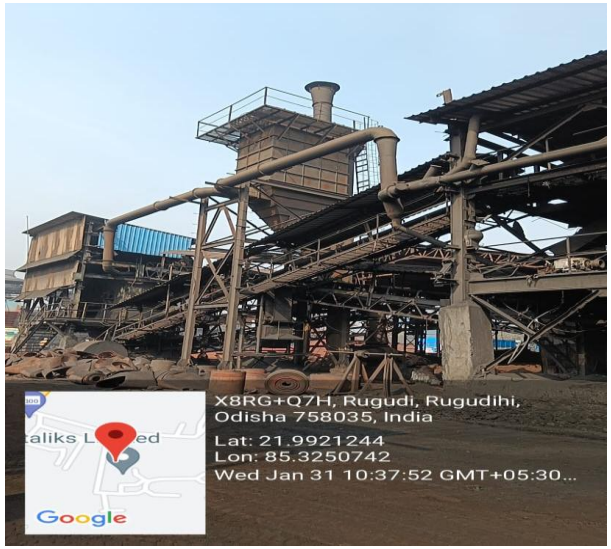




AIR POLLUTION CONTROL DEVICES & MEASURES

BAG FILTERS





AIR POLLUTION CONTROL DEVICES & MEASURES

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PLANTATION AT DIFFERENT LOCATIONS

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PLANTATION AT DIFFERENT LOCATIONS

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PLANTATION AT DIFFERENT LOCATIONS

Local species like Deodaru, Chakunda, Asan, Neem, Karanj, Aam, Panas, Amla has be planted in and around the plant premises.

SEWAGE TREATMENT PLANT – 2 NO'S

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SRTP (SURFACE RUN OFF TREATMENT PLANT)

The surface runoff water is being neutralized in a neutralization tank. After neutralization, these two effluent streams will be mixed in a Central Monitoring Basin (CMB). Service water being treated in an oil separator and after treatment it is being taken to CMB. The treated effluent utilized for dust suppression, ash conditioning and for Green belt development. No effluent will be let out of the plant premises.

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ENVIRONMENTAL EXPENDITURE

ENVIROMENT RELATED EXPANDITURE				
Sl. No.	Description	CAPITAL EXPANDITURE	OPERATIONAL EXPENDITURE	
		INSTALLED EXPENSES	MONTHLY EXP.	YEARLY EXP.
1	EXPENDITURE TOWARDS 05 NOS. VEHICLES ENGAGED FOR WATER SPRINKLING		130000	1560000
2	EXPENDITURE TOWARDS INSTALLATION & MAINTENANCE OF WATER SPRINKLER	7000000	135000	1620000
3	EXPENDITURE TOWARDS INSTALLATION & MAINTENANCE OF ESP	123700000	1560000	18720000
4	EXPENDITURE TOWARDS INSTALLATION & MAINTENANCE OF BAG FILTERS	38500000	425000	5100000
5	& MAINTENANCE OF ASH HANDLING SYSTEM	28000000	575000	6900000
6	ONLINE STACK & AAQ MONITORING SYSTEM	13200000	300000	3600000
8	CONCRETE PAVING OF ROADS	100056000	50000	600000
9	NETWORKS OF DRAINS FOR COLLECTION OF RUN OFF WATER AND SETTLING POND	19520000	300000	3600000
10	PERIODIC ENVIRONMENTAL DATA MONITORING		130000	1560000
11	GREEN BELT AND PLANTATION	3000000	150000	1800000
12	EIA /EMF REPORT		84489	1013868
13	STP INSTALLATION AND MAINTENANCE	12000000	100000	1200000
14	SRTP INSTALLATION AND MAINTENANCE	15000000	100000	1200000
15	RAIN WATER HARVESTING	5000000		
16	VACUUM CLEANER (VEHICLE)	2800000	200000	2400000
TOTAL		**367776000**	**4239489**	**50873868**

WASTE GENERATION & ITS UTILIZATION

S. No	Name	Utilization
1	Dolochar	Being used in AFBC boiler as fuel
2	Ash/Dust from ESP/Bag filter	Being used in our own existing brick manufacturing unit and send to local Fly Ash Bricks Manufacturer.
3	Wet Scraper sludge	Being used in own brick manufacturing unit and remaining quantity given to other brick manufacturers.
4	Slag	Crushed and after recovery of iron, it is being used for road construction.
5	Mill scales From Rolling Mill	Mill scales given to our own Pellet Plant at ANRA for manufacturing of Pellets
6	End Cutting	Recycled back as raw material in own induction Furnaces
7	Granulated slag	Sold to Cement Manufacturing unit.
8	Ash from CPP	Being used in our own existing brick manufacturing unit and send to local Fly Ash Bricks Manufacturer.
9	Bottom Ash from AFBC	Used in own Bricks Plant and sold to near Fly Ash Bricks Plant

WASTE WATER GENERATION & ITS TREATMENT

❖There is no industrial wastewater discharge to outside premises as the existing plant is designed on zero effluent discharge.

❖Waste water generated from plant canteen, factory toilet, staff hostel etc. are being treated through 2 no's STP having capacity 60 KLD each and the treated water used for dust suppression and gardening purpose.

❖The run-off water generated from the plant area channelized through garland drain to the SRTP.

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THANK YOU