SMEL/ENV/SPCB/2023/35

Date: 28.09.2023

The Member Secretary,
Odisha State Pollution Control Board,
PariveshBhavan,
A/118, Nilakantha Nagar
Unit – VIII, Bhubaneswar
Odisha – 751012

Subject: Submission of Environmental Statement report for the year 2022 – 23.

Dear Sir,

With reference to the subject cited above, we are submitting herewith the Environmental Statement for the Financial Year 2022 - 23.

This is for your kind information and needful action.

Thanking you
Yours faithfully

For Shyam Metalics & Energy Ltd.

SHYAM METALICS & ENERGY LTD. PANDLOI SAMBALPUR

(DIRECTOR)

Encl: As above

CC to: The Regional Officer, State Pollution Control Board, Sambalpur, Odisha.

ENVIRONMENTAL STATEMENTS

FORM – V

(See Rule 14)

The ministry of Environment andForest vide its notification dated March, 1992 directed all industries which need to have consent under water (Prevention and Control of Pollution) 1974 and Air (Prevention and Control of Pollution) 1981 to file the Environmental Statement every year. This is to be filed for the period ending March by September Every year. The format for the same is as follows:

Environmental Statement for the financial year ending the **31st March 2023, on Dt. 29.09.2023**

PART – A

(i) Name and address of the owner / occupier of the industry operation or process. **M/s Shyam Metalics and Energy Ltd. Pondloi, Sambalpur.**

(ii) Industry category Primary – (STC code) **Secondary – (SIC Code)**

(iii) Production capacity – Units.

Integrated Steel Plant 1.44 Millon Tons Per Annum.

(iv) Year of establishment. **01.09.2006**

(v) Date of the last environmental statement submitted. **28.09.2022**

PART – B

(i) Water and Raw Materials Consumption

Process

Cooling

Domestic

SEPARATE SHEET ATTACHED AS ANNEXURE – I

Name of Product	Process Water Consumption Per Unit of Product Output *SEPARATE SHEET ATTACHED AS ANNEXURE - II*	
	During the Previous Financial Year	During the Current Financial Year
1	2	3
(1)		
(2)		
(3)		
(ii)	Raw Materials Consumption *SEPARATE SHEET ATTACHED AS ANNEXURE - III*	
Name of Raw Materials	Name of Products	Consumption of Raw Materials Per Unit of Output
		During the previous financial year / During the Current Financial Year

Polluting industry may use codes if disclosing details of raw materials would violate Contractual obligations, otherwise all industries have to name the raw material used.

PART – C

Discharged to environment / unit of output specifiedif the consentissued.

Pollutants		Quantity of Pollutants Discharged (Mass/Day)	Concentration of Pollution In Discharges (Mass / Volume)	Preventive of Variation From Prescribed Standard With
(a)	Water	NIL	NIL	NIL
(b)	Air	NIL	NIL	NIL

PART – D

HAZARDOUS WASTAGES

(As specified under Hazardous Wastes /Management and Handling Rules, 1989)

Hazardous Waste	Total Quantity (Kg)	
	During the Previous Financial Year	During the Current Financial Year
(a) From Process		
(b) From Pollution Control Facilities		

SEPARATE SHEET ATTACHED AS ANNEXURE - IV

PART –E

Solid Waste

		Total Quantity	
		During the Previous Financial Year	During the Current Financial Year
(a)	From Process		
(b)	From Pollution Control Facility		
(c)	(1) Quantity recycled or reutilized within the unit		
	(2) Sold		
	(3) disposed		

SEPARATE SHEET ATTACHED AS ANNEXURE – V

PART – F

Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both the categories of Wastes.

- **Fly ash-** dry disposal system has been adopted. All the fly ash generated after making the fly ash bricks for factory internal use are being used in Low lying area filling.
- **SMS Solid Waste** – SMS solid waste are being used after removal of Iron particles in the Road Making / Raw material yard bed preparation.
- **Ferro Solid Waste-** Ferro Slags are being reused in the furnaces after removal of unused part. Waste slags are dumped into the identified dumping yard and used in road making.

PART – G

In respect of the pollution abatement measures taken up on conservation of natural Resources and on the cost of production.

- All the waste like char generated from DRI Kiln, rejects from Coal Washery like Middling and belt Press are being reused in AFBC Boiler as fuels.
- Effluent is treated in ETP of 7000 KLD capacity and treated waste water is reused in the process.

PART – H

Additional measures/ investment proposal for environment protection including abatement of pollution prevention of pollution.

- Total 22,000 nos. of saplings have been planted inside the plant premises during the year 2022-23.

Part – I

Any other particular for improving the quality of the environment.

SHYAM METALICS & ENERGY LTD. PANDLOI SAMBALPUR

Annexure – I

M/S SHYAM METALICS AND ENERGY LTD.SAMBALPUR

Month Wise Water Consumption Details For The Year 2022-23

MONTH	TOTAL QUANTITY (M^3/MONTH)	PROCESS WATER		COOLING WATER		DRINKING WATER	
		M^3/MONTH	M^3/DAY	M^3/MONTH	M^3/DAY	M^3/MONTH	M^3/DAY
APR-22	343541	82449.84	2748.32	257655.8	8588.52	3435.41	114.51
MAY-22	343925	82542	2751.4	257943.8	8598.12	3439.25	114.64
JUN-22	336854	80844.96	2694.832	252640.5	8421.35	3368.54	112.28
JUL-22	385698	92567.52	3085.58	289273.5	9642.45	3856.98	128.56
AUG-22	395701	94968.24	3165.60	296775.8	9892.52	3957.01	132
SEPT-22	384578	92298.72	3076.62	288433.5	9614.45	3845.78	128.19
OCT-22	378545	90850.8	3028.36	283908.8	9463.62	3785.45	126.18
NOV-22	412578	99018.72	3300.62	309433.5	10314.45	4125.78	137.52
DEC-22	401844	96442.56	3214.75	301383	10046.1	4018.44	134
JAN-23	421369	101128.6	3370.95	316026.8	10534.22	4213.69	140.45
FEB-23	415780	99787.2	3326.24	311835	10394.5	4157.8	138.59
MAR-23	418804	100513	3350.43	314103	10470.1	4188.04	139.60

SHYAM METALICS & ENERGY LTD. PANDLOI SAMBALPUR

Annexure - II

SHYAM METALICS AND ENERGY LTD. SAMBALPUR
Water consumption per Unit of Product

		Financial Year 2021-22		Financial Year 2022-23	
Sl. No.	Products	Yearly Production MT	Water Consumption M3/MT	Yearly Production MT	Water Consumption M3/MT
1	Sponge Iron	688177.27	0.5	954412.284	0.51
2	Coal Washery	0	0	0	0
3	Power (MW)	275296.95	3.49	367569.29	3.48
4	SMS (Billets)	481632.07	0.54	676671.52	0.55
5	Rolling Mill(TMT Bar)	159590.815	0.45	230065.973	0.44
6	Ferro Alloys	83038.63	2.28	92022.839	2.29
7	Pelletisation Plant	1109812.448	0.15	1391067	0.16
9	Wire Rods	184984.103	0.42	228813	0.41

SHYAM METALICS & ENERGY LTD. PANDLOI SAMBALPUR

Annexure – III

SHYAM METALICS AND ENERGY LTD. SAMBALPUR

Details of Raw Materials Consumption

YEAR 2021-22				
PRODUCT	**PRODUTION FOR THE YEAR 2020-21(MT)**	**TOTAL RAW MATERIAL CONSUMED (MT)**		**CONSUMPTION PER MT OUTPUT**
Sponge iron	688177.270	Iron ore/ Fines	970775.108	1.41
		Iron Pellets	226088.436	0.33
		Coal	1005721.364	1.46
M.S. billets	481632.07	Sponge iron and others	566704.875	1.18
TMT bars	159590.815	M.S.Billets	125762.082	0.78
Ferro alloys (Silicomang., ferro chrome, ferro mang)	83038.63	Mn ore, coal, coke, quartz and others	419758.370	5.05
Pipes & tubes	16443.93	H.R.coil/sheet	23307.534	1.42
Wire Rod	184984.103	M.S.Billets	208006.642	1.12
Iron pellets	1109812.448	Iron ore fines	1275339.622	1.15

YEAR 2022-23				
PRODUCT	**PRODUTION FOR THE YEAR 2021-22(MT)**	**TOTAL RAW MATERIAL CONSUMED (MT)**		**CONSUMPTION PER MT OUTPUT**
Sponge iron	954412.284	Iron ore/ Fines	888049.930	0.93
		Iron Pellets	650566.848	0.68
		Coal	1046513.581	1.10
M.S. billets	676671.520	Sponge iron and others	804607.666	1.19
Rolling Mill/TMT bars	230065.973	M.S.Billets	242996.929	1.06
Ferro alloys (Silicomang., ferro chrome, ferro mang)	92022.839	Mn ore, coal, coke, quartz and others	361935.452	3.93
Wire Rod	228813.011	M.S.Billets	236243.962	1.03
Iron pellets	1391067	Iron ore fines	1600437.609	1.15

SHYAM METALICS & ENERGY LTD. PANDLOI SAMBALPUR

Annexure IV

SHYAM METALICS AND ENERGY LTD. SAMBALPUR

Details of Hazardous Waste Generation and Disposal During The Year 2022-23

Sl.No.	Hazardous waste	Physical form	Quantity	Quantity used in house	Quantity in Storage	Storage facility/ Remarks
1.	Used Oil	Liquid	5	-	0.2 T	Total 4.8 KL sold to Authorized recycler
2.	Waste containing oil	Solid	0.06 T	-	0.06 T	Stored in container under covered shed
3.	Spent resin	Solid	0.2T	-	0.2 T	Stored in container under covered shed. As the incineration facility not available at authorized disposal party.
4.	Discarded Containers	Solid	3 T	-	3 T	Stored under covered shed.

SHYAM METALICS & ENERGY LTD. PANDLOI SAMBALPUR

Annexure - V

WASTE GENERATION AND ITS UTILISATION

WIRE ROD MILL

Sl. No.	Name of the Project.	No. of units	Year	Total capacity(TPA)	Billets (MT)	Production(MT)	Slag Generation (In MT)			Used in RCC Road bed & PCC Floor work(MT)	Reuse in Furnace(MT)
							Miss roll (MT)	Mill scale (MT)	Total Missroll and mill scale (MT)		
1	Shyam Metalics & Energy Ltd.	WRM 2X200000	2021-22	400000	192383.464	184984.1	962	481	1443	0	1443
2			2022-23		236243.962	228813	1950.29	2330	4280.29	0	4280.29

Slag Generation and Its Utilization

SMS DIVISION

Sl. No.	No. of units	Year	Total capacity	Sponge Iron,Pig Iron scrap,Miss roll	Production	Slag Generation (In MT)			Used in RCC Road bed & PCC Floor work	Reuse in Furnace
				MT	MT	Slag (MT)	Iron particle recover from slag	Total Slag generated (MT)	MT	MT
1	SMS 4X18 T/H, 4X8 T/H, 4X12 T/H, 4 X 18 T/H Induction Furnaces	2021-22	224 T/H	566704.875	481632.07	72244.8	5512.25	66732.55	66732.55	5512.25
2	SMS 4X18 T/H, 4X8 T/H, 4X12 T/H, 4 X 18 T/H &5 X 18 T/H Induction Furnaces	2022-23	314 T/H	818773	676672	140829	22926	117903	117903	22926

WASTE GENERATION AND ITS UTILISATION

ROLLING MILL

Sl. No.	Name of the Project.	No. of units	Year	Total capacity	Billets	Production	Waste Generation (In MT)			Used in RCC Road bed & PCC Floor work	Reuse in Furnace
					MT	MT	Miss roll (MT)	Mill scale (MT)	Total Missroll and mill scale (MT)	MT	MT
1	Shyam Metalics & Energy Ltd.	ROLLING MILL/TM	2021-22	ROLLING MILL /TMT	125762.08	119779.2	1672.98	1564.59	3237.57	0	3237.57
			2022-23		242996.93	230066	2649.905	2946.209	5596.11	0	5596.11

SHYAM METALICS AND ENRGY LTD. SAMBALPUR

SLAG GENERATION AND ITS UTILISATION

FERRO ALLOY

Sl. No.	Name of the Project.	No. of units	Year	Total capacity	Mg ore, Dolomite, Quartz	Production	Slag Generation (In MT)			Used in RCC Road bed & PCC Floor work	Reuse in Furnace
					MT	MT	Slag (MT)	Ferro recover from Slag (MT)	Total Slag generated (MT)	MT	MT
1	Shyam Metalics & Energy Ltd.	FERRO (2X9,2X6, 3X11 & 1X5) MVA	2021-2022	63 MVA	419758.37	83038.63	88086.54	792.8	87293.7	87293.7	792.8
2			2022-2023	68 MVA	361935.45	92022.84	97442.25	2182.09	95260.21	95260.21	2182.09

Annexure - V

M/s Shaym Metalics and Energy Ltd.

Fly Ash Generation and Its Utilization

POWER PLANT

Sl. No.	Name of the Project.	No. of units(MW)	Year	Total capacity(MW)	Coal/Lignite Consumption (MT)	Power Generation (MW)	Ash Generation (In MT)			LOW LYING AREA FILLING	Bricks Manufactureing (MT)
							Bottom Ash	Fly Ash	Total Ash		
1	Shyam Metalics & Energy	155	2021-22	155	758465	275296.8	2595	138177.1	140241	126217	14024
2		169	2022-23	169	980654	367569.3	3435.88	183019.4	186455.6	169499.6	18645.6

SHYAM METALICS & ENERGY LTD. PANDLOI SAMBALPUR