CORPORATE OFFICE :FLAT NO. 12
12th FLOOR, CHIRANJIV TOWER,
NEHRU PLACE, NEW DELHI-110019

ORISSA SPONGE IRON & STEEL LIMITED

(Formerly Orissa Sponge Iron Limited)
(An ISO 9001 & 14001 Certified Company)

TEL : 011-43742000
CIN NO. : L271020R1979PLC00081
E-MAIL : corporate@orissasponge.
WEBSITE : www.orissasponge.com

NO: OSISL/SITE/ENV/25/05/01

28/05/2025

To,
The Member Secretary
State Pollution Control Board
A-118, Nilakanth Nagar
Unit-VIII, Bhubaneswar
Odisha-751012

Sub: Submission of Environmental Statement (Form-V) for the financial year 2024-2025

Respected Sir,

Inviting reference to the subject mentioned above, we are enclosing herewith the Environmental Statement (Form-V) for the financial year 2024-2025, under rule 14 of Environment protection act 1986.

Kindly find the same.

Thanking You

For ORISSA SPONGE IRON & STEEL LTD.

OCCUPIER

Ashish Saxena
Occupier
Orissa Sponge Iron & Steels Ltd.

No.....Dt.....
RECEIVED
07 JUL 2025
S.P.C. BOARD
BHUBANESWAR

Attachments: Environmental Statement (Form-V) for the financial year 2024-2025.

C.C. Regional Office, State Pollution Control Board, Keonjhar, Odisha

Thus, the plant is incurring an additional expenditure of Rs 44 /MT of finished product towards pollution control measures.

PART – H

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

The following measures have been planned to execute in the current year for environment protection and abatement of pollution.

- We have installed tractor mounted water sprinklers and a truck water tanker for areas where sprinkler not present for now.
- Plantation of around 1500 seedlings inside the plant premises for green belt development.
- We have installed a water sprinkling system through the piping which covers around 2.5 km road in side plant. Also we have planned to install water sprinkling system in remaining roads of the plant.
- We have installed rain-gun and dry fug system in raw material area.
- We have installed dry fog system in all conveyors for dust suppression.

PART – I

Any other particular for improving the quality of the environment.

- We have installed a water sprinkling system through the piping which covers around 2.5 km road in side plant. Also we have planned to install water sprinkling system in remaining roads of the plant.
- We have installed rain-gun and dry fug system in raw material area.
- We have installed dry fog system in all conveyors for dust suppression.
- We have planned to provide Pneumatic chutes for extraction of ash, dust and dolochar from the silo discharge.
- We are reusing Fly ash in our flyash brick unit and giving to authorised vendors for making of bricks.

For ORISSA SPONGE IRON & STEEL LTD.

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- We are disposing the remaining bed ash & fly ash in earmarked site inside the plant premises.
- We have provided adequate measures for proper handling of hazardous waste in accordance with the provisions of Rules.
- We are maintaining good housekeeping throughout the plant.
- We have adopted different energy conservation measures for conserving thermal & electrical energy.
- Energy auditing done to find out the losses and to take preventive measures.
- We have developed adequate green cover inside the plant & also carried out plantation drive in the periphery villages.
- Community awareness development programmes on environmental protection and plantation drives are also undertaken through celebration of World Environment Day.
- We have undertaken extensive CSR activities.
- **Orissa Sponge iron and Steel Limited follows the "4 RS" principle i.e. Reduce, Reuse, Recycle and Restore of waste to minimize impact on environment.**

For ORISSA SPONGE IRON & STEEL LTD.

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Disposal Practice:

Ash from Silo

The ash collected in the ESP is first discharged into a hopper. From the hopper, the ash is conveyed to the silo using a mechanical conveying system such as a pneumatic conveyor. The ash is stored in the silo until it is ready to be transported. A truck is positioned beneath the silo, and a discharge chute is attached to the silo's discharge outlet. The discharge chute is typically equipped with a dust collector to prevent the escape of ash dust during loading. Water spraying system running during ash loading to prevent the escape of ash. The ash is loaded into the truck using a mechanical conveying system. The truck transports the ash to our fly ash brick making plant or dump yard inside the plant premises. The upper layer of the ash should be thoroughly wet so it will not get to air during the jerking of truck. At the Brick Plant site or Dump Yard, the truck is positioned over the Storage/Dump area and the tailgate is opened to allow the ash to fall out. Water sprinkler system must be available at there to mitigate the environmental effects of fly ash.

Waste oil:

The waste oil generated at various sources is collected in leak proof barrels and then are kept on a concrete floor with oil catch pit. It is also ensured that the caps of the barrels remain intact and in upright position. The storage area is properly fenced and caution board displayed. During transfer of waste oil to barrels, a trough is placed underneath in order to prevent land contamination due to oil spillage then at a fixed interval, these barrels are returned to stores for final disposal through authorized reprocessor.

Waste batteries:

Waste Batteries are generated in Electrical and IT section .These batteries with diluted acid and caps intact are kept under a shed having concrete floor. Then at a fixed interval, these batteries are returned to stores for final disposal. The UPS generated is kept inside the IT room and during purchase of new UPS it is handed over to the party under buy back policy.

Dolochar/Charcoal

Dolochar is by-product of Sponge iron plants and is used as fuel in AFBC Boiler along with Coal. The dolochar is mixed with coal in a ratio of 40% dolochar and 60 % coal which are used in our AFBC boiler. The dolochar mixture is used to generate electricity in AFBC Boiler. Dolochar is stored in separate bins and then sent to power plant through conveyors for use in AFBC boiler. Pollution control measures dry fog systems are installed in both sides of conveyors to reduce the impact on environment i.e. generated from it.

For ORISSA SPONGE IRON & STEEL LTD.

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Steel Slag

Steel Slag is a by-product of Steel melting process and can be utilised in different process. The steel slag can be used as a filling material for construction sites. It can be used in construction of roads. It is also used in cement making plants. It can be also used as railway Ballast. It can also be used as brick manufacturing. It can also be used in Tiles manufacturing. It can also be used as abrasive blasting material.

SMS shop Dust

SMS shop dust is a by product generated from FES system of SMS shop contains high percentage of Fe>40% and it can be reused in sinter making.

Lime Dolomite plant Dust

Due to high content of CaO & MgO, these dusts can be used for sinter making

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production:

M/s **ORISSA SPONGE IRON AND STEEL LIMITED** has spearheaded the pursuit for Environmental Protection by implementing an effective environmental management system. To this effect, the Plant has undertaken the following measures:-

i. Annual maintenance of all Pollution control systems (ESP, Bag filters, etc) including power consumption and transportation is Rs 35 lakhs (Approx)
ii. Annual maintenance of dry fog and sprinkler systems including power consumption is Rs 7 lakhs (Approx.).
iii. Misc. Contractual jobs for maintaining environmental management system was Rs 10 lakhs (approx.).
iv. We have installed a 30 KLD Sewage treatment plant of Rs. 1070000 /- (Ten lakh seventy thousand)
v. We have installed a wheel washing system for washing the wheels of heavy vehicles, so that no hazardous material will go out of the plant premises of Rs. 750000/- (Seven lakh fifty thousand only)

So the total annual expenditure incurred towards environmental protection = Rs 70.2 Lakhs (approx.)

Annual production of the plant during the year =160336.93 MT

So, the impact of the pollution abatement measures on the cost of production shall be = Rs. 70.2 Lakhs/160336.93 MT = Rs. 44/MT

For ORISSA SPONGE IRON & STEEL LTD.

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PART - E
SOLID WASTES

Sources	Total quantity	
	During the current financial year (2023-2024)	**During the current financial year (2024- 2025)**
a. From Process		
i) Dolochar	17271 MT	32093.68 MT
b. From Pollution Control Facility.		
i) Fly ash & Bed Ash	41000 MT	65000 MT
c. (1) Quantity recycled or reutilized within the unit	20305 MT (Dolochar)	30261.28 MT (Dolochar)
(2) Quantity sold	3804 MT (Dolochar) 11000 MT (fly ash)	1832.40 MT (Dolochar) 11000 MT (fly ash)
(3) Quantity disposed		

For ORISSA SPONGE IRON & STEEL LTD.

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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.

Characteristics of Dolochar	Characteristics of Fly Ash	Characteristics of Bed Ash
SiO2 = 42 % to 44 % CaO = 17 % to 19 % Al2O3 = 15% to 17% Fe2O3 = 14 % to 15 % MgO = 05% to 7 % LOI =3% to 6%	SiO2 = 38% to 63% Al2O3 = 27% to 44 % Fe2O3 = 03% to 06% CaO = 0.2% to 08% Mgo = 0.01% to 0.5% So3 = 03% to 04% LOI = 4%	SiO2 = 38% to 63% Al2O3 = 27% to 44 % Fe2O3 = 03% to 06% TiO2 = 0.2% to 0.42% CaO = 0.2% to 08% Mgo = 0.01% to 0.5% So3 = 03% to 04% K2O = 0.2 % to 0.91% Na2O = 0.2% to 0.7% LOI = 11.30%

Characteristics of Slag	Characteristics of Sludge
Cao = 40.30 % to 45.37 % Fe2O3 = 7.66% to 12.73 % SiO2 = 8.74 % to 15.38 % Al2O3 = 1.04% to 3.29 % MgO = 7.98 % to 10.29% MnO = 1.88 % to 3.03% FeO = 14.06 % to 21.58% P2O5 = 0.72 % to 1.66 %	Cao = 35.25% to 42.4 % Fe2O3= 68.6 % to 71.9 % SiO2 =3.5% to 4.13 % Al2O3=0.32% to 0.53% MgO = 2.24% to 3.59% MnO =0.33% to 0.67% Na2O= 4.15% to 6.16%

*LOI = Loss on ignition

For ORISSA SPONGE IRON & STEEL LTD.

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* F.C=Fixed Carbon

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

PART - C

Discharged to environment / unit of output specified if the consent issued.

Pollutants	Quantity of pollutants Discharged (mass/day)	Concentration of pollutions in discharges (mass / volume)	Percentage of variation from prescribed standards with reasons
a) Water	NIL	NIL	NA
b) Air			
Stack emission of WHRB-1. Particulate Matter (PM) in mg/NM^3	-	*49.1 mg/NM^3	Within the prescribes standard
Stack emission of AFBC-1. Particulate Matter (PM) in mg/NM^3	-	*0 mg/NM^3 (Not in Use throughout the year)	Within the prescribes standard
Stack emission of WHRB-2. Particulate Matter (PM) in mg/NM^3		45.3 mg/NM^3	Within the prescribes standard
Stack emission of AFBC-2. Particulate Matter (PM) in mg/NM^3		43.21 mg/NM^3	Within the prescribes standard

***Annual average data**

1. Prescribed standard for Particulate matter emission from stack attached to WHRB-1 & 2 is **100 mg/NM^3** and AFBC-1 & AFBC-2 is 50 **mg/NM^3**

For ORISSA SPONGE IRON & STEEL LTD.

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PART - D
HAZARDOUS WASTES

(As specified under the hazardous wastes/management & handling rules, 1989)

Hazardous wastes	Total quantity (Kg)	
	During the Past financial year (2023-2024)	**During the current financial year (2024-2025)**
a) FROM PROCESS		
i) USED TRANSFORMER OIL	0 Ltrs	0 Ltrs
ii) WASTE OIL	500 Ltr	450 Ltr
iii) Waste Containing Oil	3951 Kg (Oil contaminated cotton waste)	3460 Kg (Oil contaminated cotton waste)
b) FROM POLLUTION CONTROL FACILITY	41000MT Fly Ash and Bed Ash	65000 MT Fly Ash and Bed Ash

For ORISSA SPONGE IRON & STEEL LTD.

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ENVIRONMENTAL STATEMENTS

FORM-V

(See Rule 14)

The Ministry of Environment & Forest vide its notification dated March, 1992 directed all industries which need to have consent under Water (Prevention & Control of Pollution) 1974 and Air (Prevention &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 2025**.

PART – A

(i) Name and address of the Owner/occupier of the Industry Operation or Process : Mr .Ashish Saxsena
(Occupier)
Orissa Sponge Iron And Steel Ltd.
(Formerly Orissa Sponge Iron Limited)

Corporate Office: Flat No:1203, 1204, 12th Floor, Chiranjiv Tower, Nehru Place, New Delhi- 110019

Regd. Office. Osil House, Gangadhar Meher Marg, Bhubaneswar, Odisha-751024

Site: P.O. Palaspanga, Dist.- Keonjhar, Odisha-758031

(ii) Industry Category Primary – (STC code) : Large
Secondary – (SIC code)

(iii) Production Capacity-Units : Sponge Iron 2,50,000 MT/year
: Steel Billets 1,00,000 MT/year

(iv) Year of establishment : 1979.

(v) Date of the last submission : 08.01.2025

For ORISSA SPONGE IRON & STEEL LTD.

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PART - B
Water and Raw Material Consumption

(i) Water consumption m^3/d

Water consumption heads	**Water consumption quantity in m^3/day**	**Approval Quantity from Central Ground Water Authority, Ministry of Water Resources, Govt. of India**
Cooling Tower:	1200.23	The approved quantity for surface water withdrawal from river Ardei is **1 cusec (2448m^3/day).** The approval is accorded vide Agreement No 837 Dtd.18.02.2025 with Government of Odisha Represented by Superintending Engineer, Baitarani Division, Keonjhar.
DM plant	414.23	
WTP	50.76	
DRI	400.87	
Steel melting Shop	108.24	
Dust Suppression	96.35	
Domestic	65	
Total Consumption/day	**2341.68**	

Name of product	**Process water consumption per unit of product output (M^3/T).**		
	During the previous financial year (2023-2024)	**During the current financial year (2024-2025)**	
1	**2**	**3**	
DRI.			
Steel billets			
(ii)	**Raw material consumption**		
Name of raw material	**Name of products**	**Consumption of raw material for unit of output.** (For production of 1 MT of DRI).	
	DRI	**During the previous financial year (2023-2024)**	**During the current financial year (2024-2025)**
Iron Ore		1850 Kgs	1846 Kgs
Dolomite		64 Kgs	62 Kgs
Coal		1737 Kgs	1694 Kgs
Electricity		40.68 KW	46.85 KW

For ORISSA SPONGE IRON & STEEL LTD.

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