

Ref: VSL/EHS/STATEMENT/2023-24/074
September 29, 2023

To,
The Member Secretary
State Pollution Control Board, Odisha,
Paribesh Bhawan, A/118, Nilakantha Nagar,
Unit VIII, Bhubaneswar – 751012
ODISHA

Subject: Annual Environmental Statement for the Year 2022-23


Dear Sir,
We are enclosing herewith annual Environmental Statement for the financial year 2022-23 for our Ferrochrome and Captive Power Plant of Visa Steel Limited.

This is for your kind information and necessary records Please.

Thanking you,

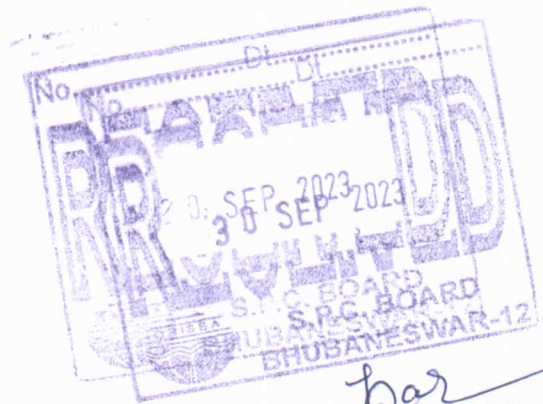
Yours faithfully,

For VISA STEEL LTD.


30.09.23

(Bharat Chandra Sahoo)

Sr. GM Ferrochrome



CC to: The Regional Officer, Regional Office SPCB, Dhabalgiri, Near OMC Office,
P.O.-Ferro Chrome Plant, Jajpur Road, Dist.-Jajpur, Odisha-755019, India



VISA Steel Limited
(CIN:L51109OR1996PLC004601)

ENVIRONMENT STATEMENT REPORT



FOR THE FINANCIAL YEAR 2022-23

Submitted to SPCB under Rule 14 of The Environment (Protection) Rules 1986

VISA STEEL

VISA STEEL LIMITED

Kalinganagar Industrial Complex, Jakhapura, Dist. Jajpur - 755026, Orissa, India

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Form-V

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING ON 31ST MARCH, 2023

Part-A

Name and address of the owner/ occupier of the industry, operation or process : Manoj Kumar,
Director
VISA Steel Ltd,
Kalinganagar Industrial Complex,
Jajpur Road, Odisha.

Industry Category Primary/(STC code) : Metal and Mining

Secondary (SIC code) : Large Industry

Production Capacity : Ferrochrome - 1,50,000 TPA
Power – 75 MW

Year of Establishment : 2007

Date of Last Environmental statement submitted : Environmental Statement for the
financial year 2021-22 on 29.09.2022

Part-B

WATER AND RAW MATERIAL CONSUMPTION

Water Consumption, m³/day :

Process	521 m ³ /day
Cooling	2750 m ³ /day
Domestic	250 m ³ /day
Total	3521 m³/day

Name of Products	Process Water Consumption per unit of Product Output	
	During the Previous financial year (2021-2022)	During the current financial year (2022-2023)
Ferrochrome	1.27 m ³ /T	1.54 m ³ /T
CPP-Electricity	2.88 m ³ /MWH	3.42 m ³ /MWH

Raw Material Consumption :

Name of raw materials	Name of Products	Consumption of raw material per unit of Output	
		During the Financial Year (2021-2022)	During the current Financial Year (2022-2023)
Chromites Ore	Ferro Chrome	2.32 T/T	2.23 T/T
Coal & Coke		0.52 T/T	0.52 T/T
Fluxes		0.13/T	0.17 T/T
Molasses		0.15 T/T	0.12 T/T
Others		0.08 T/T	0.07 T/T
Coal & Char	CPP-Electricity	0.13 T/MWH	0.24 T/MWH

PART-C

POLLUTION DISCHARGED TO ENVIRONMENT/ UNIT OF OUTPUT
(PARAMETERS AS SPECIFIED IN CONSENT ISSUED)

Pollutants	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (mass/volume)	Percentage of variation from prescribed standard with reasons
(a) Water	The entire effluent from each unit is being treated through SRTS, ETP & RO Plant and recycled within plant premises in different activities being performed and waste water is not allowed to discharge outside the plant complying Zero-Discharge Concept.		
(b) Air			
i. Ferrochrome (Complex 1)	201.73 Kg/day	2561.73 mg/Nm ³	Complied. All the parameters are observed within the stipulated limits.
ii. Ferrochrome (Complex 2)	127.731 Kg/day	20.38 mg/Nm ³	
	72.04 Kg/day	21.79 mg/Nm ³	
iii. Power Plant	97.04 Kg/day	13.97 mg/Nm ³	

Part-D

HAZARDOUS WASTES

(As specified under Hazardous & Other Wastes [Management and Transboundary Movement] Rules, 2016)

Hazardous wastes		Total Quantity (in KL)	
		During the current financial year 2021-22	During the current financial year 2022-23
From Process	Used Oil	6.68 KL	10.2 KL
	Waste containing Oil	0.6 Ton	0.6 Ton
	Discarded Containers	250 nos.	0.75 Ton
	Spent Resin	Yet to be generated	5.0 Ton
	Oily Sludge	NIL	5.03
From Pollution Control facilities	Flue gas cleaning residue (Ferro-chrome Plant)	3013 Ton	2130 Ton

Part-E

SOLID WASTES

Solid wastes		Total Quantity (in MT)	
		During the previous financial year 2021-2022	During the current financial year 2022-2023
(a) From process	Fe-Cr Slag	139899 MT	111766 MT
(b) From Pollution Control facilities	Fly Ash	169156 MT	77142 MT
(c) 1. Quantity recycled or re-utilised within the unit	Fe-Cr Slag	Entire slag from Ferrochrome Plant is being used in Metal recovery Plant for recovery of Ferrochrome. Further, the processed slag is being used for road making.	
2. Sold	-	-	-
3. Disposed	Fly ash	Bricks Manufacturer = 111465 MT	Bricks Manufacturer = 77142 MT
	Utilisation	100 %	100 %

Part-F

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

A) Hazardous Wastes

Hazardous Wastes Characteristics and Disposal practice:

Sl. No.	Hazardous Wastes	Characteristics	Quantity	Mode of Disposal
1.	Used Oil	Liquid	4.6 KL	Sold to Authorised recycler
2.	Waste containing oil	Liquid	Nil	Sold to Authorised recycler
3.	Oily Sludge	Semi-solid	5.03	
4.	Discarded Containers	Solid	0.75Ton	Disposal to original suppliers
5.	Spent resins	Solid	Nil	Yet to be generated
6.	Flue gas cleaning residue (Ferro-Chrome Plant)	Solid	2130MT	Recycled in the process.

B) Solid Wastes

Solid Wastes Characteristics and Disposal practice:

Solid Wastes	Characteristics	Mode of Disposal
Fe-Cr slag	Nature : Solid; Colour : Black; pH (20% Slurry) : 8.24; Conductivity : 789 μ mhos/cm; Density (g/cm ³) : 2.9; Corrosivity : Not corrosive; Reactivity : Not reactive; Toxicity : Non toxic.	Slag from Ferrochrome Plant is being used in Metal recovery Plant for recovery of Ferrochrome. Further, the processed slag is being used for road making.
Bottom Ash	SiO ₂ :%62.90, Fe ₂ O ₃ :%7.58, CaO:%2.02, MgO:% 2.74, Al ₂ O ₃ :% 22.52	Entire quantity is being given to Bricks manufacturers.
Fly Ash	SiO ₂ :%61.80, Fe ₂ O ₃ :%5.21, CaO:%1.79, MgO:%2.26, Al ₂ O ₃ :%26.70	Fly ash from CPP is being used in own Fly-ash Bricks Plant for captive use and the rest amount of fly ash is being disposed off to local fly ash bricks manufacturer, meeting 100 % utilisation of fly ash.

Part-G

Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.

1. The plant is equipped with various state-of-the-art Air Pollution Control devices such as Bag Houses, Electrostatic precipitators etc. designed to control the emission (PM) level below 100 mg/Nm³ from the process stacks and 50 mg/Nm³ from CPP stack installed at our plant.
2. The plant is maintaining zero effluent discharge from the entire plant. ETP followed by RO plant of 50 M³/hr has been installed at CPP to treat the generated process water and is 100% re-used in CPP. Further the RO reject water is being used for fly ash quenching and hot cake quenching at Ferrochrome complex-I & II. Treated STP water is being used for green belt development. No process water is being discharged outside.
3. Four nos. Continuous Ambient Air Quality Monitoring Stations (CAAQMS), 6 nos. of Opacity Monitors and gas analyzers have been installed at major process stacks and 1no. of Continuous Effluent Quality Monitoring Station (CEQMS) have been installed at the outlet of Effluent Treatment Plant. Data are being transmitted to SPCB & CPCB server.
4. Three nos. of Sewage Treatment Plant has been installed for GET Hostel, Colony and Main office. The treated water is being used for horticulture activities.
5. Pressure recharge Rain water harvesting system has been installed for roof top water of GT hostel building based on Pressure recharge system.
6. Fixed type dust suppression system installed in Coal storage yard to suppress fugitive dust generation.
7. Surface Run-off Treatment System (SRTS) of adequate capacity is installed at Plant for treating surface run-off water. Further the SRTS drain is connected with various settling pits before the SRTS to catch the suspended solids before entering into SRTS.
8. Char from Sponge Iron Plant is completely re-used in own CFBC Boilers as a fuel.



Pollution Prevention & Control:

We have spent approx. **445.54** Lakhs (Capital/Recurring) for pollution control system in the last financial year (2022-23). The details are as below:

Sl. No.	Activity	Expenditure Rs. Lakhs (approx.)	Remarks
1.	Development of green belt including gardens & lawn inside and outside the plant premises. Maintenance cost for Afforestation and garden development.	16.71	Maintenance Expenditure

Sl. No.	Activity	Expenditure Rs. Lakhs (approx.)	Remarks
2.	Operation & maintenance cost for Pollution Control Devices like Electrostatic precipitator, Gas cleaning plant, De-dusting system, ETP-RO and dry fog system etc.	218.75	Maintenance Expenditure
3.	Installation of pollution control devices like ESP, GCP, DES, AHP, FES, DFS DSS, dust catcher, sludge thickener, gas cleaning plant (Heat Exchangers & bag house system), ETP, RO Plant, SRTS, RWHS, and others	108.52	Capital Expenditure
4.	Maintenance cost for water sprinkling and dust suppression system and housekeeping	2.4	Maintenance Expenditure
5.	Environmental monitoring and analysis. Including recalibration of Respirable dust samplers and stack monitoring kits etc. AMC/CMC for online stations to third party.	99.16	
Total		445.54	

Part-H
Additional measures/Investment proposal for environmental protection including abatement of pollution

Additional Measures:

1. Extensive water sprinkling arrangement is provided in the coal handling area and Ferro- alloy area to reduce the fugitive dust emission in the plant. Fifteen nos. of water sprinkler has been installed at internal roads for suppression of fugitive dust generation. Further, four numbers of water spraying nozzles installed over the belt conveyors and ground hopper for suppression of fugitive dust generation from material transfer points at Ferrochrome Complex. In addition, twenty seven numbers of fixed type water spraying nozzles installed at ground hopper of coal feeding point.
2. Organic waste convertor has been installed and commissioned for further treatment of kitchen waste to generate organic manure which is being used in green belt development.
3. The plant has worked in various aspects like conservation of water i.e. the intake water from IDCO, consumption has been reduced from 10800 KLD to 6000 KLD by installation of ETP & RO.
4. An extensive plantation and green landscape with more than 1,71,756 forest tree species planted in and around the Complex over 173.5 Ac. of land till date to meet the specified CPCB guidelines. Apart from avenue plantation with forest species, shrubs have been planted as a second canopy all along the road sides. Trees and lawns in the plant premises and colony are served with treated

waste water from the plant. Further, a nursery (Poly-house) has been developed inside the Plant for developing various species of the saplings for plantation.

Green belt developed	During the Previous financial year (2020-21)	During the current financial year (2022-23)
Saplings Planted	9000	500
Survival rate	94 %	99 %
Total Plantation	1,71,756 nos	
Area covered	173.5 Ac. (About 33%)	

PART -I

Any other particulars for improving the quality of environment

1. IMS Certification (New Standards) :

The unit has obtained its recertification for Integrated Management System that includes ISO 14001:2015 (Environment Management System), ISO 9001:2015 (Quality Management System) and ISO 45001:2018 (Occupational health & safety Management System).

2. World Environment Day :

World Environment Day 2023 celebrated and we had organised some plantation activities among the employees and site specific awareness programme to propagate the environment requirement to create a better environment in industry wise. The theme of WED 2023 was '**Beat the Plastic Pollution**' which was also propagated among the employees to motivate them for restoration of ecosystem through various activities.