

Ref. No: FACOR/HSE/ES/23-1

Date: 29.09.2023

To,

**The Member Secretary,
State Pollution Control Board,
Paribesh Bhawan, A/118,
Nilakantha Nagar, Unit-VIII,
Bhubaneswar.**

Sub: Submission of Environment Statement for the year 2022-23 by M/s Ferro Alloys Corporation Limited (Charge Chrome Plant), Randia, Bhadrak.

Sir,

With reference to the above cited subject, please find enclosed copy of Environmental Statement for the financial year ending 31st March,2023 in **Form-V** by M/s Ferro Alloys Corporation Limited (Charge Chrome Plant) for your kind perusal.

Thanking you,

Yours faithfully,
For **Ferro Alloys Corporation Limited**
Charge Chrome Plant


Sanjay Pal
Factory Manager

Copy to: The Regional Officer, SPCB, Balasore.

M/s. Ferro Alloys Corporation Ltd. (A subsidiary of Vedanta Ltd.)

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FORM V

(See Rule 14)

Environmental Statement for the Financial Year Ending 31st March 2023.

PART – A

- i. **Name and address of the owner/occupier of the industry operation process.**
Shri Balwant Singh Rathore, Director,
M/s. Ferro Alloys Corporation Ltd.,
Charge Chrome Plant, Randia-756135,
Dist. Bhadrak, Orissa.
- ii. **Industry category Primary – Large**
- i. **Production Capacity-Units - Charge Chrome/High Carbon Ferro Chrome**
68043 MT/Annum of Total Production from Smelting
Furnace out of total capacity 75000 MT/A Charge
Chrome 2104.9 MT/Annum from Metal Recovery Plant
out of total capacity 6300 MT/A.
- ii.
- iii. **Year of Establishment - 7th March, 1983.**
- iv. **Date of the last environmental statement submitted – 30.09.2022.**

PART – B

Water and Raw Material Consumption

1. Water Consumption m³/day

Process Cooling – 246
Domestic – 958

Name of Products	Process Water Consumption Per Unit of Product Output	
	During the Previous Financial Year 2021-22	During the Current Financial Year 2022-23
Process and Cooling	1.296 m ³ /MT	1.278 m ³ /MT

2. Raw Material Consumption

Name of Raw Materials	Name of Products	Consumption of Raw Material Per Unit of Output	
		During the Previous Financial Year 2021-22	During the Current Financial Year 2022-2023
Chrome Ore	Charge Chrome/ High Carbon Ferro Chrome	2.456 MT	2.28 MT
Coke		0.633 MT	0.581 MT
Quartzite		0.011 MT	0.011 MT
Bauxite		0.060 MT	0.11 MT
Electrode Paste		13.499 Kg	12.54 Kg
Hydrated Lime		0.072 MT	0.068 MT

PART – C

Pollution Discharge to Environment/ Unit of Output (Parameter as Specified in the Consent Issued)

(1) Pollutants	Quantity of Pollutant Discharged (Mass/Day)	Concentration Pollutants in Discharge (Mg/Ltr)	Percentage of Variation from Prescribed Standards with Reasons (Mg/Ltr) STANDARD
(a) <u>Water</u> PH BOD COD TSS Cr ⁺⁶ Oil & grease	Zero Discharge	7.4 10 47 18 Less than 0.05 Less than 0.025	5.5 – 9.0 30 250 100 0.1 10
(b) <u>Air (Ambient)</u> PM 10 PM 2.5 SO ₂ NO ₂ CO	- - - - -	<u>µg/ m³</u> 59.38 31.38 8.07 14.36 0.38 mg/m ³	<u>µg/ m³</u> 100 60 80 80 4 mg/ m ³

PART – D

Hazardous Waste

(As Specified Under Hazardous Waste (Management and Handling) Rule, 2016)

Hazardous Wastes	Total Quantity (Kg)	
	During the Previous Financial Year 2021-22	During the Current Financial Year 2022-23
a) From Process used oil	0.36 KL	1.94 KL
b) From pollution control facility flue dust from G.C.P.	1924.82 MT are utilized as raw material in the furnace area after making pellets/ Briquettes	2469.9 MT are utilized as raw material in the furnace area after making pellets/ Briquettes

PART – E
Solid Wastes

Solid Waste	Total Quantity	
	During the Previous Financial Year 2021-22	During the Current Financial Year 2022-23
(a) From Process	75,378.00 MT (Slag)	65,811.66 MT (Slag)
(b) From Pollution Control Facility	-	-
(c) 1) Quantity Recycle and Re-Utilized within the Unit	Part of Jigging Slag used for Civil Construction Work	Part of Jigging Slag used for Civil Construction Work
2) Solid	-	-
3) Disposed	Used for filling low lying areas within plant premises	Used for filling low lying areas within plant premises

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 these categories of wastes.

- The granulated slag generated from the process is used for filling low lying areas in plant premises.
- Slag generated from the Metal Recovery Plant also used for filling low lying areas. Some portion of the jigging slag also used for civil construction work i.e. road making, floor concreting etc.
- Flue dust generated from the Gas Cleaning Plant is re-used as raw material in the furnace after making pallets/briquettes.
- Solid waste like Waste Cotton, Empty Bottles, Jerry Canes, Rejected Spares and Steel Scrapes etc. are stored in proper manner, so that it shall not pose any threat to Environment. Moreover, some of those items have scrap values and disposed off with price realization.
- The solid waste like Wastepaper, Domestic Waste and Canteen Waste etc. are allowed to decompose in waste pits. The same is used as manure after decomposition.

PART – G

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

- The water used in MRP is re-circulated and make up water is supplied from the rainwater harvesting pond. The water from the rainwater harvesting pond also used for granulation plant, metal cooling, dust suppression and green belt development, thereby saving consumption of fresh water.
- The flue dust collected from the Gas Cleaning Plant and Dryer stacks are reused as raw material in the process.
- By using jigging slag in civil construction work, company saves cost of stone chips.
- The solid waste like waste batteries, E- Waste, steel scraps, empty barrels, jerry canes etc. are disposed off with price realization.
- Biodegradable waste like waste paper, domestic waste and canteen waste are used as manure for gardening after decomposition.
- FACOR being an 14001 & 50001 certified company, doing a lot for the conservation of Energy and Natural Resources.
- Furnace cooling water is re-circulated in a close circuit and make up water is added in to it.

PART – H

Additional measures / investment proposal for environmental protection Including abatement of pollution

Expenditure for Environmental Protection FY 2022-23

i)	Installation of New Cooling Tower	:	39,72,120/-
ii)	Installation of STP (10KLD)	:	41,06,400/-
iii)	Installation of Digital flowmeter & Piezometer with Telemetry.		8,62,081/-
iv)	Greenbelt development & engagement of worker for plantation maintenance work	:	80,23,320/-
v)	Engagement of Water Tanker for dust suppression	:	2,16,000/-
vi)	Installation of New GCP for 33MVA project		11,89,21,402/-
vii)	Installation of Digital display board	:	2,20,000/-
viii)	Installation of CAAQMS, CEMS, CWMS & data transmission	:	64,19,200/-
ix)	Maintenance of GCP	:	36442713/-

Investment Proposal for Environmental Protection FY 2023-24

- Connection of ETP pipeline – Rs. 15,00,000/-
- Deployment of Road sweeping machine O&M – Rs. 15,00,000/-
- Installation of wheel washing system – Rs. 18,00,000/-
- Installation of organic waste converter- Rs. 4,00,000/-

PART – I

Any other particulars for improving the quality of the environment.

- FACOR is a certified company of Quality Management System (ISO-9001: 2015), Environmental Management System (ISO-14001: 2015), Occupational Health & ISO 45001:2018 and Energy Management System (ISO-50001:2018).
- FACOR being an ISO 14001-2015 Company, engaged a dedicated team of members in Environmental Management System for strictly implementing and maintaining the Environment Policy framed by Managing Director.

