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FACOR

Ref: FACOR/HSE/ES/22-1
Date: 30.09.2022

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 2021-22 by M/s Ferro Alloys Corporation Limited, Randia, Bhadrak.

Sir,

With reference to the above cited subject, please find enclosed copy of Environmental Statement for the financial year ending **31st March 2022** in **Form-V** by **M/s Ferro Alloys Corporation, Charge Chrome Plant** for your kind perusal.

Thanking you,

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

Sandeep K Acharya
Chief HSE Officer

Copy to: The Regional Officer, SPCB, Balasore.

Ferro Alloys Corporation Limited
Charge Chrome Plant, D.P. Nagar, Randia- 756 135, Dist. Bhadrak, Odisha, India
Phone : 06784 240320/240347/240272, Fax : 06784 240626
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CIN : L45201OR1955PLC008400

FORM V

(See Rule 14)

Environmental Statement for the Financial Year Ending 31st March 2021.

PART – A

i. **Name and address of the owner/occupier of the industry operation process.**
Shri Sauvick Mazumdar, Occupier,
M/s. Ferro Alloys Corporation Ltd.,
Charge Chrome Plant, Randia-756135,
Dist. Bhadrak, Orissa.

ii. **Industry category Primary** – Large

iii. **Production Capacity-Units** - Charge Chrome/High Carbon Ferro Chrome 69,250.58 MT/Annum of Total Production from Smelting Furnace out of total capacity 75000 MT/A
Charge Chrome 5,745 MT/Annum from Metal Recovery Plant out of total capacity 6300 MT/A.

iv. **Year of Establishment** - 7th March, 1983.

v. **Date of the last environmental statement submitted** – 28.09.2021.

PART – B

Water and Raw Material Consumption

1. **Water Consumption m^3 /day**
Process Cooling – 246
Domestic – 694

Name of Products	Process Water Consumption Per Unit of Product Output	
	During the Previous Financial Year 2020-21	During the Current Financial Year 2021-22
Process and Cooling	1.089 m^3/MT	1.296 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 2020-21	During the Current Financial Year 2021-2022
Chrome Ore	Charge Chrome/ High Carbon Ferro Chrome	2.456 MT	2.603 MT
Coke		0.564 MT	0.633 MT
Quartzite		0.030 MT	0.011 MT
Bauxite		-	0.060 MT
Electrode Paste		12.420 Kg	13.499 Kg
Hydrated Lime		0.060 MT	0.072 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) Water			
PH		7.4	5.5 – 9.0
BOD		10	30
COD		50	250
TDS	Zero Discharge	350.0	-
TSS		18	100
Cr^{+6}		Less than 0.05	0.1
Oil & grease		0.4	10
(b) Air(Ambient)		µg/ m^3	µg/ m^3
PM 10	-	71.97	100
PM 2.5	-	38.17	60
SO_2	-	8.43	80
NO_2	-	15.52	80
CO	-	0.35	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 2020-21	During the Current Financial Year 2021-22
a) From Process used oil	-	0.36 KL
b) From pollution control facility flue dust from G.C.P.	1701.77 MT are utilized as raw material in the furnace area after making pallets/ Briquettes	1924.82 MT are utilized as raw material in the furnace area after making pallets/ Briquettes

PART – E
Solid Wastes

Solid Waste	Total Quantity	
	During the Previous Financial Year 2020-21	During the Previous Financial Year 2021-22
(a) From Process	68,093.00 MT (Slag)	75,378.00 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.
- Waste batteries are sold to authorised dealer/recycler under battery Rule 2001, and Returns submitted to State Pollution Control Board.
- 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 Waste Paper, Biological Waste, Domestic Waste and Canteen Waste etc. are allowed to decompose in waste bins. 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 rain water harvesting pond. The water from the rain water 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, biological waste, 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 2021-22

i)	Installation of Surface Runoff Treatment System	:	1,71,69,000/-
ii)	Installation of STP (50KLD)	:	20,29,865/-
iii)	Installation of Dedusting system at Agglomeration		1,75,23,000/-
iv)	Greenbelt development & engagement of worker for plantation maintenance work	:	2,90,000/-
v)	Engagement of Water Tanker & water sprinkler for dust suppression	:	3,20,000/-

Investment Proposal for Environmental Protection FY 2022-23

- Installation of New Cooling Tower – Rs. 39,72,120/-
- Installation of CAAQMS, CEMS, CWMS & data transmission – Rs.62,85,200/-
- Maintenance of GCP - Rs. 4,20,50,000/-
- Installation of STP (10KLD) – Rs. 35,00,000/-
- Installation of Digital display board – Rs. 2,00,000/-
- Installation of Digital flowmeter & Piezometer with Telemetry – Rs. 9,47,080/-

- Installation of Digital flowmeter & Piezometer with Telemetry – Rs. 9,47,080/-
- Installation of New GCP for 33MVA project – Rs.1,40,32,000/-
- Deployment of Road sweeping machine O&M – Rs. 15,00,000/-
- Installation of Mist cannon / DSS – Rs. 25,00,000/-

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.