ADITYA BIRLA
HINDALCO

MAP/ENV/EAS/2024-25/142

27' September 2024

To,
The Member secretary,
M.P. Pollution Control Board,
E-5, Area Colony Bhopal
(Madhya Pradesh)-462016

Subject: - Submission of Environmental Statement (Form-V) for FY' 2024.

Dear Sir,

Please find the herewith enclosed Environmental Statement (Form-V) for the financial year ending 31st March-2024 as per Substituted by Rule 2(a) (i) of the Environment (Protection) Amendment Rules, 1993 vide notification G.S.R. 386(E), dated 22.4.1993(29 of 1986).

Thanking you,

for- Hindalco Industries Limited, Unit-Mahan Aluminium

(Utpal Sarkar)
Environment Cell

Cc:

The Regional Officer
M.P. Pollution Control Board
Bhakuar, Naugadh,
Singrauli, (M.P.)

HINDALCO INDUSTRIES LIMITED
MAHAN ALUMINIUM, BARGAWAN,SINGRAULI(M.P)

FORM-V

(See Rule 14)

Environment Audit Statement For the Financial Year Ending 31st March 2024

PART - A

1	Name & Address of the owner/occupier of the Industry, Operation or Process	:	Mr. Praveen Kumar Maheshwari M/S Hindalco Industries Ltd. Mahan Aluminium Off:NH-75E,Bargawan Distt-Singrauli(M.P) 486886
2	Industry category	:	Large /Red
3	Production Capacity	:	3.98 LTPA -(Aluminium Smelter) 6 X 150 MW - Power Plant (1 X 150 MW stand by unit)
4	Year of establishment	:	2009
5	Date of the last Environment Audit Statement submitted	:	28.09.2023

Part -B
Water Consumption

i]	Water Consumption in m3/ day		Please refer Annexure - 1		
			Previous year (2022-23)	Current year (2023-24)	Remarks
	Process	:	38212	37942	
	Cooling	:	-	-	
	Agriculture	:	-	-	
	Domestic	:	1642	1707	Including Township consumption

	Water Consumption per unit product(KL/Unit product)		Previous year (2022-23)	Current year (2023-24)	Remarks
	Name of the Product	UOM			
	Electricity	KL/MWH	2.49	2.40	Calculation as per actual meter reading has separated the water consumption between Power plant and Smelter.
	Primary Aluminium	KL/MT	0.90	1.044	

Raw Material Consumption

ii]	Raw Material Consumption Per unit Product	UOM	Previous year (2022-23)	Current year (2023-24)	Remarks
	Name of Raw Materials				
	Alumina	MT/ T of Al	1.910	1.932	
	Aluminium fluoride	MT/ T of Al	0.013	0.013	
	Coal	MT/ MWH	0.620	0.615	
	CP coke	MT/ T of Al	0.374	0.376	
	Fuel Oil CPP	KL/ MWH	0.0002	0.0001	
	Fuel Oil Smelter	KL/ T of Al	0.029	0.030	
	Pitch	MT/ T of Al	0.079	0.080	

Part -C

Pollution Discharged to environment per unit of output
(Parameter as specified in the consent issued)

i]	Pollution	UNIT #	Qty of pollutants discharged (kg/day)	% of variation from prescribed standards with reason	Remarks
a]	Water		We are recycling all treated effluent with in the premises.		
b]	Air				
	Power Plant				
	PM(Kg/day)	Unit 1	652	NIL	
		Unit 2	679	NIL	
		Unit 3	757	NIL	
		Unit 4	863	NIL	
		Unit 5	746	NIL	
		Unit 6	563	NIL	
	SO_2 (Kg/day)	Unit 1	6637	NIL	
		Unit 2	7857	NIL	
		Unit 3	7719	NIL	
		Unit 4	7631	NIL	
		Unit 5	6571	NIL	
		Unit 6	4503	NIL	
	No_x (Kg/day)	Unit 1	4462	NIL	
		Unit 2	5002	NIL	
		Unit 3	4759	NIL	
		Unit 4	4712	NIL	
		Unit 5	4531	NIL	
		Unit 6	4028	NIL	
	Aluminium Smelter				
	PM (Kg/day)	GTC 1	640.75	NIL	
		GTC 2	576.01	NIL	
		FTC	14.30	NIL	
	HF (Kg/day)	GTC 1	19.57	NIL	
		GTC 2	19.33	NIL	
		FTC	0.59	NIL	

Part -D

Hazardous Wastes

As specified under Hazardous and other Wastes (Management and Transboundary movement) Rules, 2016

Genration Quantity

S.N.	Hazardous Wastes	UOM	Previous year (2022-23)	Current year (2023-24)	Remarks
a]	From Process				
i	Used oil / Spent oil **(5.1)**	MT	112.70	111.65	
ii	wastes / residues containing oil **(5.2)**	MT	4.00	8.91	
iii	cathod residues including pot lining wastes **(11.2)**	MT	1004.58	7299.21	
iv	Aluminium Drosses **(11.5)**	MT	4048.43	4622.99	
v	Used anode butts **(11.6)**	MT	45465.71	50538.63	
vi	Spent ion exchange resin containing toxic chemicals **(35.2)**	MT	0.00	0.00	
vi	Tar Containing Waste **(11.3)**	MT	0.15	3.16	
viii	Flue Gas Dust and Other Particulates **(11.4)**	MT	3064.06	3067.52	
ix	Empty Barrels/ Containers/ Liners Contaminated with Hazardous Chemical/ waste**(33.1)**	MT	9.00	7.16	
x	Contaminated Cotton Rags or other Cleaning Materials **(33.2)**	MT	21.00	4.39	
xi	Cat. A72(Sch-II): Fluoride		28.00	0.00	
xii	Cat. 15.2: Discarded Asbestos	MT	0.00	0.00	
b]	From Pollution Control facilities				
i	Chemical Sludge From Waste Water Treatment **(35.3)**	MT	99.00	95.00	

Part -E

Solid Wastes

i]	Total Quantity	UOM	Previous year (2022-23)	Current year (2023-24)	Remarks
a]	From Process				
i	Fly ash	LMT	10.64	9.74	
ii	Bottom ash	LMT	1.18	1.08	
b]	From Pollution Control facilities	LMT	--	--	
c] 1)	Qty recycled or reutilised within the unit	LMT	--	--	
i	Fly ash	LMT	11.78*	14.198*	*Includes internal use as well as supplied to Cement Industries, Brick manufacturing, Road Construction and low lying area
ii	Bottom ash	LMT	2.76	1.14	Disposed to own ash dyke

Part - F

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

Hazardous Wates:

1. All the hazardous wastes generated are safely stored in identified storage sheds as well as proper display of identifivcation. We have received the authorization under Hazardous and Other waste(Management and Transboundary Movement)Rules-2016.

Part -G

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

1. To maintain constant vigil on environmental compliance, environmental reviews are carried out in all section and remedial measures have been taken wherever necessary. Such periodic Environmental reviews and extensive monitoring of the facilities carried out in all over plant have helped comply with the environmental norms.
2. Carbon sequestration study was completed as well as for flora and fauna by CII team score was 64%.
3. Construction of check dam in surrounding villages to beneficiate the local farmers and improve the water level.
4. Survey done by MNIT prayagraj for strengthen the Rain Water harvesting system.

Part -H

Additional measures/investment proposal for environmental protection abatement of pollution, prevention of pollution.

1. All Internal roads are either concreted or black topped to reduce fugitive dust emission inside the plant premises during movement of vehicles.
2. A Miyawaki plantation is in progress along the boundary wall as well as open space inside the plant. Also, some patches of lawn and gardens are developed inside the plant premises and town ship to improve the beautification. We have plan to Cover 33% of the total land area.
3. In addition to dust extraction system at dry Fly ash loading silo, we have installed water sprinklers at loading bay to arrest fugitive emission during loading if any.
4. Good housekeeping always in practise.
5. Water sprinkling arrangement provided at Coal handling area to reduce fugitive dust emission in the plant.
6. All stacks are equipped with continuous emission monitoring systems.
7. Continuous Ambient Air Quality monitoring stations has been installed.
8. State-of art technology of dry scrubbing system installed at pot line and anode baking.
9. Latest microprocessor control provided for pot line.
10. Proper arrangement having for the storage of Hazardous waste.
11. Highly efficient ESPs connected with boilers.

Part -I

Any other particulars for improving the quality of the environment

1. Duringthe reporting period we had done 30,730 plant sapling and now total 11.32 Lacs Nos plants at different location in side the premises up to **FY 2023-24.** We are in progress to develop green belt development and beautification work in side plant premises and township area.
2. We have proper sprinkling arrangement at Ash dyke to mitigate the fugitive emission.
3. Installation of FGD for desulphuirization in flue gas emmition
4. Deployment of Sweeping machine for regular road cleaning entire the plant

(Dr. Vinod Kumar)
Assist. Manager - Environment

(Utpal Sarkar)
Asst. General Manager- Environment

Date : 27.09.2024