



24th September 2024

The Environmental Engineer,
A.P. Pollution Control Board,
Regional Office, 1st Floor, APPCB Building,
Narasimha Teertham Road, (Near LIC),
Tirupati - 517501

Sub: Submission of Form V for the year 2023-24

Ref: Consent No. 1803488/APPCB/KNL/TPT/CFO&HWA/2023 dated 11/01/2024

Dear Sir,

We are submitting the Environment Statement in Form No. V duly filled-in for the year 2023-24 for Hindalco Industries Limited, Kuppam Works

Requesting to please acknowledge the same,

Thanking You,

Yours faithfully,

For Hindalco Industries Limited



Rajiv Upadhyay
Authorized Signatory

Hindalco Industries Limited

Kuppam Works : No. 255,257, 279, Industrial Park, Kuppam - 517 425, Chittoor (Dt), Andhra Pradesh, India
T: +91 70938 97416 | E: hindalco@adityabirla.com | W: www.hindalco.com

Registered Office : 21st Floor, One International Center, Tower 4, Prabhadevi, Near Prabhadevi Railway Station,
Senapati Bapat Marg, Mumbai - 400 013,

T: 022 - 66917000 | F: 022 - 66917001 | Corporate ID No.: L27020MH1958PLCO11238

FORM NO. V
(See rule 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31 MARCH 2024

Part A

SI No	Description	
1	Name and address of the owner/occupier of the company	Rajiv Upadhyay Unit Head- Kuppam Works Hindalco Industries Ltd., No.255,257,279, Industrial Park, Kuppam – 517 425. Chittoor Dt., Andhra Pradesh
2	Operation process	Production of Aluminium Extruded Sections
3	Industry Category	
	Primary (STC Code)	NA
	Secondary (STC Code)	NA
4	Production capacity (units)	Aluminium Extruded Sections 55 MT Extrusions/ day
5	Year of Establishment	2009
6	Date of last environmental statement submitted	15 th September 2023

PART B

Water and Raw Material Consumption

1. Water consumption (m³/day)

Description	Consumption
Process	8.8 m ³ /day
Industrial Cooling	21.5 m ³ /day
Domestic	9.3 m ³ /day

SI No	Name of the product	Process water consumption per unit of product	
		During the previous financial year (2022-23)	During the current financial year (2023-24)
1	Aluminium Extrusions (Extruded Sections)	0.97 m ³	0.93 m ³

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Raw Material Consumption

Name of material	Name of products	Consumption of Raw Materials per unit of Product (MT)	
		During the previous financial year (2022-23)	During the current financial year (2023-24)
Aluminium billets (imported & domestic)	Aluminium Extruded Sections	1.31 MT	1.35 MT

Industry may use code if disclosing details of raw material would violate contractual obligation otherwise all industries have to name the raw material used.

PART -C

POLLUTION DISCHARGED TO ENVIRONMENT OF OUTPUT (Parameters as specified in the consent order issued)

Sl No	Pollutants	Quantity of pollutants discharged - mass/day (Kg/day)	Concentration of pollutants in discharges - mass/volume (mg/l)	Percentage of variations from prescribed standards with reasons.
WATER				
Treated Effluent from STP				
1	pH	--	7.26	Individual or average values do not exceed the limits specified
2	Suspended Solids	0.039	4.57	
3	Oil & Grease	0.043	5.00	
4	BOD	0.051	6.00	
AIR				
	Pollutants	Quantity of Pollutants discharged mass/day Kg/d	Concentration of pollutants in discharges mass/volume mg/Nm3	Percentage of variations from prescribed standards with reasons.
AMBIENT AIR QUALITY				
	PM₁₀	---	54.8	Individual or average values do not exceed the limits specified
	PM_{2.5}	---	21.3	
	SO_x	---	16.2	
	NO_x	---	18.6	
STACK EMISSIONS				
	SPM	4.38	37.19	Individual or average values do not exceed the limits specified
	SOX	5.86	51.56	

PART D

Hazardous Wastes

As specified under The Hazardous & Other Wastes (Management and Transboundary Movement) rules 2016

Hazardous Wastes	Total Quantity	
	During the previous financial year (2022-23)	During the current financial year (2023-24)
a) From Process		
Used oil / Waste oil	3.38 MT	3.5 MT
Spent acids/alkalines	Nil	107 MT
Polishing wax	Nil	Nil
b) From Pollution Control facilities		
ETP Sludge	554.0 MT	908.0 MT
Solar evaporation salts	Nil	Nil
ETP treated liquid to CETP	1505 KL	1641 KL

PART- E

SOLID WASTES

	Total Quantity	
	During the previous financial year (2022-23)	During the current financial year (2023-24)
Aluminium Scrap sent to sister unit for recycling	3595 MT	4007 MT

PART –F

(Please specify the characteristics (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 Wastes

1. **ETP Sludge:** Effluents from the anodizing and powder coating plants are treated in the Effluent Treatment Plant (ETP). The treated liquid is disposed to CETP, Naidupeta or evaporated through solar evaporation pond. The sludge recovered from the effluent is sent to pre-processing unit for coprocessing. During the year 2023-24, 908 MT of ETP sludge was generated and 900.3 MT was disposed to TSDF.

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2. **Lead Acid batteries:** These battery wastes contain lead and acid. Used batteries are stored under cover on concrete floor and are disposed through buyback option (Assure Energy Systems, Tirupati and Omkar Power Systems, Bengaluru).
3. **Used Oil/ Waste Oil:** This contains oil and is stored in drums, kept on concrete floor with proper roof within company premises. Total 3.5 KL of Used oil was sold to M/s Navya Used and Waste Oil Refining Company, Vishakhapatnam (authorized re-processors as consented by APPCB) and disposed.

Solid Wastes:

1. **Aluminium Scrap:** Aluminium scrap generated from our extrusion presses, fabrication and surface treatment plants are segregated separately and sent to our sister plant at Mahan, Madhya Pradesh for recycling in their casting plants. About 4007 MT of scrap was generated during the year 2023-24 which have been sent to the above-mentioned plant.
2. **MS scrap material:** These are mild steel items generated in the factory premises. These are stored at scrap yard and periodically sold to external parties.
3. **Wooden scrap:** Sold to outside parties periodically.
4. **Plastic wastes:** These are generated in the packing sections and from incoming supplies. Plastic wastes are segregated, stored separately and disposed to authorized re-processors.

PART G

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

1. Air

No harmful gaseous emissions from any of the operations in the factory. Fumes from the anodizing plants are passed through wet scrubbing system before releasing to the atmosphere. All our furnaces are working on LPG as fuel and the emission values are very much within the limits. Hence there is no impact on environment. The luxuriant growth of vegetation in and around the company illustrates that no environmental damage has been caused by any of the operations of our plant. Saplings of various types of plants and trees are being planted to promote environment friendly atmosphere inside the plant every year.

2. Water

Water used for cooling purposes is recycled through our water re-circulation system and hence does not have any adverse impact on water bodies and surrounding areas. Effluents from anodizing and powder coating plants are treated in ETP and the treated water is sent to CETP. Zero Liquid Discharge (ZLD) plant project is in final phase. Once the plant is commissioned, The ETP outlet water will be treated in ZLD and the condensate water will be used back in process. This will significantly reduce water intake from our borewells. Treated domestic water from STP is used for irrigation of plants and trees inside the factory premises.

3. Hazardous wastes

a) ETP Sludge:

Sludge generated from the ETP is disposed through APPCB approved pre-processors for coprocessing in cement plants as authorized through consent. Hence there is no adverse impact on environment.

b) Used oil/ waste oil:

Used oil/ waste oil, are stored in drums under cover on concrete floor. This is sold to authorized re-processors. Hence there is no adverse impact on environment.

<u>Impact on cost of production</u>		<u>2023 - 24</u>
Capital Expenditure on Environment	-	Rs. 101.9 Lakhs
Revenue Expenditure on Environment Protection (Operating Cost for ETP, STP, Air Pollution Control Systems, Disposal of Wastes including ETP sludge and treated effluent, Analytical services from external lab etc.)	-	Rs. 178.2 Lakhs

PART -H

Additional measures /investment proposals for environment protection including abatement of pollution, prevention of pollution

1. Dedicated trench laid down for transferring effluents from anodizing plant to ETP
2. Storm water drain revamped to ensure smooth flow of rainwater
3. Waste aluminium scrap generated at our production plants are sent to our sister plants for recycling.
4. Streetlights inside the company are being replaced by energy efficient LED lamps. Only energy efficient lamps/bulbs will be used for all further replacements in the lighting system.

PART- I

Any other particulars for improving the quality of environment

Process / Production technology

- Technology upgradation for enhanced energy efficiency, better utilization of resources and for protecting and improving the environment.
- Carried out various technological up-gradations for minimizing noise pollution and for enhancing the energy efficiency of presses.

Raw Material

- Import substitution of aluminium billets, which is the main raw material for extrusion process. 50% of our billet requirement is now met from our own group units compared to earlier years where all our billet requirements were met through export procurement.

Water Pollution Aspects

- Sewage Treatment Plant to treat sewage water and used for irrigation purposes in our factory premises.
- Effluent treatment plant to treat all the effluents generated from production units.
- Zero liquid discharge (ZLD) plant project in progress. This plant will process the ETP treated liquid to convert it into pure water that will be used back into the process.

Air Pollution Aspects

- Ambient air quality and stack gas monitored periodically.
- Ambient air monitoring as per NAAQ standards.
- Dust/fume collection system in all cutting machines.
- Acoustic enclosure for pumps and motors (separate rooms) in extrusion presses.
- PUC is mandatory for all vehicles entering inside the factory.

Solid Waste/Hazardous Wastes

- Ban on single use plastics (SUP) inside factory premises. Our unit has been certified as SUP free unit by CII.
- Municipal solid waste - Collected separately as bio-degradable, non-biodegradable and cotton waste with oil.
- Plastic packing materials are reused or recycled
- Minimizing the use of wooden material for packing application
- Biomedical wastes segregated and disposed to authorized disposal facility.

Noise pollution Aspects

- Periodic noise level monitoring inside plant and plant boundary.
- Acoustic enclosure for pumps and motors in extrusion plant
- Audiometric test for all employees during PME
- Issue of ear plugs to all employees on regular basis.
- Replacement of high-noise generation pumps with new low-noise generation pumps

Land Pollution Control

- No discharge of water or effluents outside company premises.
- No spillage of oil or other hazardous wastes / chemicals on soil. Such substances handled only in places with impervious floors.
- Green belt developed in several areas inside the company.

Other clean technology measures

- Promotional activities of tree plantation through campaigns etc. are in place. Plantation of saplings inside the plant premises is done periodically and on World Environment Day.
- Widespread lawns and landscapes have been created inside the company to provide more greenery as part of environmental protection measures.
- Variable Frequency Drives for most of the critical equipment
- Translucent sheets in the building roof and sides to save power during daytime.
- Natural Eco ventilators in place of powered exhaust
- PLC controlled furnaces
- Energy efficient and super energy efficient motors and lights

- Energy meters at all major energy centres
- The unit is certified for Environment Management System (ISO 14001: 2015), Quality Management System (ISO 9001: 2015) and Occupational Health and Safety (ISO 45001: 2018)
- Promote use of aluminium in place of wood products used in trucks and buses (200-250 TPA)
- Minimize use of wooden material for packing application
- Ban on single use plastics (SUP) inside the factory premises.
- Recycling of plastic packaging materials sent to customers through CPCB approved plastic recycler on brand neutral basis.
- Kuppam unit is ASI-certified (Aluminium Stewardship Initiative) which ensures sustainable production of aluminium extrusions throughout the value chain of the product.



Rajiv Upadhyay
Unit Head- Kuppam Works
Hindalco Industries Ltd.,
No. 255,257,279, Industrial Park,
Kuppam – 517 425. Chittoor Dt., AP.

A handwritten signature in blue ink, with the date "24/9/24" written below it.