

VAML/OSPCB/002/2026-101

September 22, 2026

O/C

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

Sub: Submission of Environment Statement for 2025-26 of 2400 MW Thermal Power Plant of
M/s. Vedanta Aluminium Metal Limited, Jharsuguda

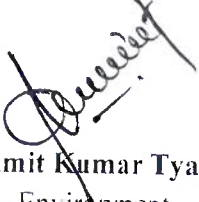
Ref: Rule 14 of the Environment (Protection) Rules, 1986

Respected Sir,

This has reference to the captioned subject and the cited reference. Please find enclosed the Environment Statement of 2400 MW Thermal Power Plant of M/s. Vedanta Aluminium Metal Limited, Jharsuguda for 2025-26 duly filled in Form-V.

Thanking You,

Yours Faithfully,
For M/s. Vedanta Aluminium Metal Limited, Jharsuguda


Dr. Amit Kumar Tyagi
Head - Environment



Enclosures: Environment Statement in Form-V

Copy to: The Regional Officer, State Pollution Control Board, Odisha, Jharsuguda

Vedanta Aluminium Metal Limited

Vill.: Bhurkamunda, P.O.: Kalimandir, Dist.: Jharsuguda, Odisha, India, 768202

T: +91-664 566 6000 | F: +91-664 566 6267 | Website: www.vedantaaluminium.com

REGISTERED OFFICE: Vedanta Aluminium Metal Limited, C-103, Atul Projects, Corporate Avenue New Link, Chakala MIDC, Mumbai, Maharashtra, India, 400093

CIN: U24202MH2023PLC411663 | Email: vaml.sect@vedanta.co.in



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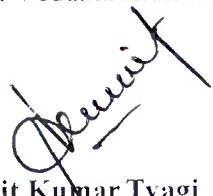
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ENVIRONMENTAL STATEMENTS

FORM-V (See Rule 14)

The Ministry of Environment & Forest vide its notification dated March 1992 directed all industries which need to have consent under Water (Prevention & Control of Pollution) 1974 and Air (Prevention & Control of Pollution) 1981 to file the Environmental statement every year. This is to be filed for the period ending March by September every year. The format for the same is as follows:

Environmental Statement for the financial year ending the 31st March 2026.

PART-A

(i)	Name and address of the owner / occupier of the industry operation or process	:	C Chandru, CEO, M/s. Vedanta Aluminium Metal Limited, 2400MW Thermal Power Plant (TPP), Banjari, Jharsuguda - 768202
(ii)	Industry category Primary – (STC code) Secondary – (SIC Code)	:	Red A Thermal Power Plant
(iii)	Production capacity – Units	:	2400 MW (4 X 600)
(iv)	Year of establishment	:	2010
(v)	Date of the last environmental statement submitted	:	22 nd September 2025

PART-B Water and Raw Material Consumption

- (i) Water consumption m³/d
Process: 1417.715
Cooling: 84123.285
Domestic: 2787.589

Name of Product	Process water consumption per unit of product output	
	During the previous financial year	During the current financial year
Electricity (4 X 600 MW)	2.052 m ³ /MWH	1.973 m ³ /MWH

(ii) Raw material consumption

Name of raw material	Name of products	Consumption of raw material per unit of output	
		During the previous financial year	During the current financial year
Coal	Electricity (4 X 600 MW)	0.729 MT/MW (at GCV 3162 Kcal/Kg)	0.706 MT/MW (at GCV 3227 Kcal/Kg)
LDO		0.00023 KL/MW	0.00015 KL/MW

Polluting Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw material used.

PART-C

Discharged to environment / unit of output specified if the consent issued.

Pollutants		Quantity of pollutants discharged (mass/day)	Concentration of pollutions in discharges (mass / volume)	Percentage of variation from prescribed standards with
(a)	Water	Nil (ZLD)	Nil (ZLD)	Nil (ZLD)
(b)	Air			Within the prescribed limits
	UOM	kg/day	mg/Nm ³	
	TPP Unit - 1	PM	2633.323	
		SO ₂	81225.270	
		NO _x	26528.176	
	TPP Unit - 2	PM	2182.818	
		SO ₂	65896.351	

		NO _x	22124.050	279.717
	TPP Unit - 3	PM	2842.913	45.967
		SO ₂	83220.657	1345.167
		NO _x	25682.391	327.983
	TPP Unit - 4	PM	2634.875	43.983
		SO ₂	79539.016	1326.917
		NO _x	26301.573	351.772

PART-D

HAZARDOUS WASTAGES

(As specified under Hazardous Wastes / Management and handling Rules, 1989)

Hazardous Waste		Total Quantity (Kg)	
		During the previous financial year	During the current financial year
(a) From process			
1	Used / Spent Oil	13900	20980
2	Wastes / Residue Containing Oil	1690	505
3	Spent Resin / Ion Exchange Resin Containing Toxic Metal	0	0
4	Discarded Containers / Barrels / Liners Contaminated with Hazardous Waste / Chemicals	0	0
5	Insulated copper wire scrap or copper with PVC sheathing including ISRI-code material namely "Druid"	0	0
6	"Production and/or industrial use of paints (Process wastes, residues and sludges)"	-	0

7	Rubber Wastes	-	8540
8	Wastes pairings & Scrap of rubber		
9	Waste Pneumatic and other tyres excluding those which do not lead to resource recover, recycling, reclamation but not for direct use		
(b) From pollution control facilities		0	0

PART-E

Solid Waste

		Total Quantity	
		During the previous financial year	During the current financial year
(a)	From process	Nil	Nil
(b)	From pollution control facility		
	Ash (Fly ash + Bottom ash)	47,55,029.059 MT	46,16,483.276 MT
(c)	(1) Quantity recycled or re-utilized within the unit		
	Ash (Fly ash + Bottom ash)	Nil	Nil
	(2) Sold	Nil	Nil
	(3) Disposed		
	Ash (Fly ash + Bottom ash)	51,58,828.659 MT (In Sustainable Avenues)	53,07,157.396 MT (In Sustainable Avenues) (Additional 690674.120 utilized from Operational Ash Pond/Dyke)

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 the categories of wastes.

Characterization & Disposal Practice of Hazardous Wastes

Sl. No.	Category of Hazardous	Waste Description	Composition	Quantum (T/A)	Disposal Practice
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	Waste as per the Schedules I, II and III of these Rules				
1	Schedule – I Stream - 5.1	Used or Spent Oil	As per HW Rules, 2016 (Schedule V) Polychlorinated biphenyls (PCBs): < 2 ppm Lead: 100 ppm Arsenic: 5 ppm Cadmium + Chromium + Nickel: 500 ppm Polyaromatic hydrocarbons (PAH): 6 %	120	Disposal through Actual Users authorized by SPCB, Odisha
2	Schedule – I (Stream - 5.2 & 33.2)	Wastes or Residues Containing Oil	Silica as SiO ₂ : 23.93 % Alumina as Al ₂ O ₃ : 17.35 % Iron as Fe ₂ O ₃ : 21.94 % Calcium as CaO: 8.47 % Magnesium as MgO: 3.61 % Sodium as Na ₂ O: 4.11 % Potassium as K ₂ O : 8.05 % Titanium as TiO ₂ : 1.14 %	10	Disposal in Authorized Hazardous Waste Incinerator
3	Schedule – I Stream – 35.2	Spent ion exchange resin containing toxic metal	Silica as SiO ₂ : 11.22 % Alumina as Al ₂ O ₃ : 21.29 % Iron as Fe ₂ O ₃ : 4.84 % Calcium as CaO: 13.59 % Magnesium as MgO: 5.53 % Sodium as Na ₂ O: 17.39 % Potassium as K ₂ O : 2.07 % Zinc as ZnO: 1.88 %	100	Co-incineration in CPP for energy recovery
4	Schedule – I Stream -33.1	Empty barrels /containers /Liners contaminated with Hazardous Chemicals/ Wastes	-	50	Captive reuse/disposal through original supplier/Actual users authorized by SPCB, Odisha
5	Schedule -IV Stream -7	Insulated copper wire scrap or copper with PVC sheathing	-	50	Disposal through Actual Users having valid authorization from SPCB,

		including ISRI-code material namely "Druid"			Odisha
6	Schedule – I Stream -21.1	Production and/or industrial use of paints (Process wastes, residues and sludges)	-	10	Disposal through Actual Users authorized by SPCB, Odisha
7	Schedule III Stream - B3040	Rubber Wastes	-	200	Disposal through Actual Users authorized by SPCB, Odisha and registered under EPR portal of CPCB for Waste Tyre
8	Schedule III Stream - B3080	Wastes Parings and Scrap of Rubber	-		
9	Schedule III Stream - B3140	Waste Pneumatic and other Tyres, excluding those which do not lead to resource recover, recycling, reclamation but not for direct use	-		

Characterization & Disposal Practice of Solid waste:

Sl. No.	Waste Description	Composition	Quantum (Tons/Day)	Disposal Practice
1	Ash	Silicon dioxide (SiO ₂): 61.60 - 62.03 % Aluminium Oxide (Al ₂ O ₃) + Iron Oxide (Fe ₂ O ₃): 32.24 - 33.66 % Magnesium Oxide (MgO): 1.01 - 1.21 %	18,000	Utilization as per fly ash notification, 31st December 2021 and amended thereof. Rest to be disposed

				in High concentration slurry disposal to Lagoon - 1 & 3 of Katikela ash pond, Pond 3 of ash pond at Kurebaga, Lagoon-1 of Siriapali ash pond and other designated sites allowed by SPC Board.
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PART-G

In respect of the pollution abatement measures taken up on conservation of natural resources and on the cost of production.

(A) Air Pollution Reduction Projects

- Ash Conveying Pipeline replaced to minimize leakages.
- Replacement of Fabric Filter bags in Unit 3 Hybrid ESP (17520 Bags) & Unit 4 Hybrid ESP (17520 Bags).
- Replacement of Fabric Filter bags in Transfer Silo (Unit2-33 Bags, Unit3-288, Unit4-80).
- Replacement of Fabric Filter bags in Terminal Silo (Unit3-144, Unit4-236).
- Bunker All 24 DE system Bag replacement done for efficiency improvement
- Track Hopper Dust suppression system height modification done to enhance coal dust suppression
- Padel with tungsten carbide coating installed for proper mixing to minimize dust emission.
- Automated ash loading system installed with interlock to eliminate ash slurry loading to prevent spillage.

(B) Water Conservation Programs

- Overhauling of both CHP ETP to enhance treatment efficiency.
- Overgrounding of firefighting water line has been completed to reduce the underground pipeline leakages.
- Two Rooftop Rainwater Harvesting Structures has been installed and harvested water is being utilized in the process.
- Continuous Operation of 500 m3/hr ETP with RO system.
- Regular preventive maintenance of Effluent Treatment Plant with RO system to achieve desired norms. Treated water is being reused in the process.

(C) Energy Conservation Initiatives

- U#4 APH seal replacement resulted in an annual energy saving of 11,352 GJ.

- U#4 seal trough air-ingress correction and penthouse sealing resulted in an annual energy saving of 17,454 GJ.
- U#4 NDCT 10% fill replacement resulted in an annual energy saving of 8,895 GJ.
- U#4 fabric filter 10% replacement resulted in an annual energy saving of 17,028 GJ.
- U#4 condenser jet cleaning resulted in an annual energy saving of 8,895 GJ.
- U#4 flue gas duct and bellow modification resulted in an annual energy saving of 28,380 GJ.
- U#3 APH seal replacement resulted in an annual energy saving of 1,622 GJ.
- U#3 seal trough air-ingress correction and penthouse sealing resulted in an annual energy saving of 2,493 GJ.
- U#3 NDCT 10% fill replacement resulted in an annual energy saving of 1,756 GJ.
- U#3 condenser jet cleaning resulted in an annual energy saving of 4,389 GJ.
- U#3 fabric filter 10% bag replacement resulted in an annual energy saving of 1,622 GJ.

(D) Solid Waste Management:

- Achieved more than 100 % ash utilization in various sustainable avenues such as cement plants, brick manufacturing, construction of roads/flyover embankments etc.

PART-H

Additional measures/investment proposal for environment protection including abatement of pollution prevention of pollution.

(A) Investment Proposals:

Air Pollution Control:

- Overhauling of Unit 1 ESP and Fabric Filter (FF) Bags replacement.
- Ash conveying Pipeline & Bag filter replacement in all Terminal Ash Silo top to minimize fugitive emission.
- Installation of CHP rain guns dust suppression for controlling yard dust emission.
- Installation of CHP Wind Barrier for controlling yard dust emission.
- Track Hopper Prewetting System installation to minimize dust emission.

Water pollution Control:

- Regular preventive maintenance of Effluent Treatment Plants to achieve desired norms. Treated water is being reused in the process.
- Reduction of Cooling Water Blowdown by Increasing COC from 6.35 to 7.5.
- Over ground of firefighting water line at Coal Handling Plant and switchyard
- Filter Media Replacement of ZED RO Primary Sand Filter to enhance treatment efficiency.
- Installation of New Commercial Hypo System in Cooling Tower to reduce water consumption.

Energy Conservation Initiatives:

- Unit #1 ID fan power consumption will be reduced through replacement of the flue gas duct, expansion bellow, APH seal and FF bags, resulting in annual energy savings of 50,372 GJ.
- Unit #1 APH hot-end basket replacement will improve gas-side efficiency, resulting in annual energy savings of 43,338 GJ.
- Unit #1 NDCT fills replacement and condenser cleaning will improve condenser vacuum, resulting in annual energy savings of 81,259 GJ.
- Unit #2 ID fan power consumption will be reduced through replacement of the flue gas duct, expansion bellow, APH seal and FF bags, resulting in annual energy savings of 11,194 GJ.
- Unit #2 APH hot-end basket replacement and jet cleaning will improve gas-side efficiency, resulting in annual energy savings of 9,631 GJ.
- Unit #2 NDCT fills replacement and condenser cleaning will improve condenser vacuum, resulting in annual energy savings of 16,854 GJ.
- Refurbishment of one TD BFP through cartridge replacement will result in annual energy savings of 12,038 GJ.

PART-I

Any other particular for improving the quality of the environment.

- We have taken up a mass plantation drive outside plant premises in an area of approx. 50 acres with 1 lakh saplings under MoEF&CC drive-Ek Ped Maa Ke Naam.
- Implemented Integrated Management System (IMS) across 2400 MW Thermal Power Plant for better quality, pollution control and improve health of people working in the plant.
- All important Environmental Days Celebrated to build up Environmental awareness among employees and community.
- Regular Awareness Session, TBTs & various training conducted for awareness and rally campaign in Vedanta Jharsuguda complex towards Environment protection, climate change and Biodiversity conservation.

