ADITYA BIRLA

UTKAL ALUMINA

Ref: UAIL-Mines/BBM/153/2020

15th September 2020

To

The Member secretary
State Pollution Control Board, Odisha
Parivesh Bhawan, A/118
Nilakanthanagar, unit- VIII
Bhubaneswar- 751012

Sub: Submission of Environment Statement for the financial year ending 31st March, 2020 with respect to our Baphlimali Bauxite Mine of M/s Utkal Alumina International Ltd.

Sir

Please find enclosed herewith the Environment Statement in prescribed Form-V for the financial year ending 31st March, 2020 with respect to our Baphlimali Bauxite Mine of Utkal Alumina International Ltd as per the provision of Environment (Protection) Rule, 1986.

This is for your kind information and necessary record please.

Yours faithfully,

For Utkal Alumina International Limited

MKJha
15/09/2020

Mukesh Kumar Jha

Head- Mines

Baphlimali Bauxite Mine

Encl: As Above

Copy to:

1. Regional Office, OSPCB, Rayagada.

FORM-V
(See rule 14)

Environmental Statement for the Financial Year Ending 31st March 2020, of Baphlimali Bauxite Mines of M/s. Utkal Alumina International Ltd.

PART-A

(i). Name and address of the owner/
Occupier of the industry operation : Mr. S K Mishra
Baphlimali Bauxite Mine
Utkal Alumina International Ltd.
At- Doraguda, Po- Kucheipadar
Dist. Rayagada- 765015

(ii).Industry category : Large/Red

(iii).Production capacity : 8.5 MPTA (Bauxite Ore)

(iv).Year of establishment : 2012

(v). Date of the last environmental statement submitted. : 24.09.2019
(Vide letter No. UAIL- Mines/BBM/074/2019)

PART-B

WATER AND RAW MATERIAL CONSUMPTION

(1) Water Consumption in m3/Day

Process : Nil, Since Mining Activity.
Industrial (Dust Suppression & others) : 590 m3/Day
Domestic & others : 152 m3/Day

Name of products	Process water consumption per unit of product output	
	During the previous financial year	During the current financial year
	(1)	(2)
Bauxite Ore	N/A	N/A

(2) Raw material consumption

Not applicable, as it is a raw material (Bauxite Ore) generating unit for its parent concern Utkal Alumina International Limited.

PART- C

POLLUTION DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT

(Parameter as specified in the consent issued)

Pollutants	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (mass/volume)	Percentage of variation from prescribed standards with reasons.
(a) Water	No Discharge	No Discharge	Not applicable since no discharge.
(b) Air	No Discharge except SPM	SPM < 1200 mg/m3	Below than the prescribed standards. However, the Ambient Air Quality Monitoring Report FOR 2019-20 is attached as **Annexure- 1**

PART-D

HAZARDOUS WASTES

(As specified under Hazardous Wastes (Management & Handling Rules, 1989)

Hazardous Wastes	Total Quantity	
	During the previous financial year (2018-19)	During the current financial year (2019-20)
1. From Process a) Used Oil b) Oil Filters c) Discarded barrels d) Contaminated cotton waste	: 48.16 KL : 2.88 Tonne : 229 Nos : 0.48 tonnes	: 52.92 KL : 0.652 Tonne : 261 Nos : 0.052 tonnes
2. From Pollution Control Facilities	: NIL	: NIL

PART- E

SOLID WASTES

Solid Wastes	Total Quantity	
	During the previous financial year(2018-19)	During the current financial year (2019-20)
(a) From process (Overburden)	39,63,438 tonnes	41,91,059 tonnes
(b) From Pollution Control Facility	Nil	Nil
(c)		
i. Quantity recycled or re-Utilized within the unit.	39,63,438 tonnes (backfilling)	41,91,059 tonnes (backfilling)
ii. Sold	Nil	Nil
iii. Disposed	Nil	Nil

PART - F

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

Characterization of Hazardous waste & Solid waste:

The used or spent oil, contaminated cotton rags, oil filters etc. from the maintenance of HEMMs and other machineries have been identified as hazardous wastes. The composition of solid waste (Overburden) mainly consists of laterite.

Disposal Practices:

a) Solid Waste:

Over Burden is being systematically and scientifically backfilled over the voids of mined out area followed by plantation.

b) Hazardous wastes:

The used oil generated is collected in leak proof barrels and then kept on an impervious floor under shed with oil catch pit. It is also ensured that the caps of the barrels remain intact and horizontal. During transfer of waste oil to barrels, a trough is placed underneath in order to prevent land contamination due to oil spillage. Provision of impervious pit with oil for

collection of oily waste is there at the workshop premises in addition to the existing practice of collection at specified barrels.

Similarly, the used cotton wastes, oil filters generated are collected in designated impervious pits. The hazardous wastes are being dispatched to the authorised re-cyclers of SPCB/CPCB.

PART-G

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

The main pollution control measures taken at Baphlimali bauxite mines of M/S Utkal alumina international ltd are as follows:

1. **Air pollution control measures:**

- Drilling machine with in-built vacuum cyclone dust collector & equipped with water spraying system is being adopted.
- Controlled blasting with the application of NONEL is being practiced to check fly rocks and pre-wetting is practiced before charging.
- The haulage roads are being maintained, compacted periodically.
- Regular water sprinkling is being carried out by fixed type & mobile water sprinklers at sources of fugitive dust generation like loading & unloading areas, material transfer points etc. to suppress emission and distribution of dust particles.
- Dry Fog System is in place for dust suppression at crusher.
- The transportation of Bauxite ore from the mine pit to the refinery unit is being carried out through closed conveyor system to restrict the dispersion of dust. Periodic maintenance of Diesel machines is being carried out to decrease the emission level of NOx and SOx.
- Plantation is carried out in the plateau slope, safety zone, backfilled & other areas to prevent dust flow outside the lease area.
- Periodical monitoring of Air quality is being carried out by an approved external agency & is found within permissible limit.
- Three Nos.CAAQMS (Continuous Ambient Air Quality Monitoring Station) have been installed inside the core zone for real time monitoring of air quality parameters for effective control of air pollution.

2. Water pollution control measures:

- Runoff is coursed through garland drains provided with intermediate settling pits subsequently allowed to the mined-out pit where it gets recharged. The drains and settling pits are regularly de-silted and maintained.
- Check dams are provided around the slopes of valley to arrest the sediments.
- Peripheral barrier is provided around the mine to stop the direct flow of water down to the valley.
- Domestic effluents are treated in the sewage treatment plant (STP) located at mines & discharged to soak pit via septic tank.
- Implementation of recommendations as suggested by NIT, Rourkela for Runoff Management are complied.

- Water quality & ground water level is monitored periodically through an approved agency and is found within prescribed limit.

3. Sound and Vibration control measures:

- Preventive maintenance of machineries is carried out properly to control the noise level below 85 dB in the work environment.
- The controlled blasting technique is adopted to minimize noise & vibration. Blasting vibration is being measured regularly by using Seismograph.
- Workers engaged in blasting, drilling & HEMM operations are provided with ear plugs/ muffs.
- Noise level (ambient as well as work environment) is monitored periodically through an approved external agency & is found within permissible limit.

PART- H

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

- Mitigation measures shall be continue to implement for minimization of soil erosion & choking of stream.
- Loose boulder check dams shall be constructed across the seasonal nallah, drainage line & semi-perennial nallah occurring along the sloppy area of the lease.
- Installation of Organic waste converter to treat organic solid waste generated from canteen.

PART - I

MISCELLANEOUS

Any other particulars in respect of environmental protection and abatement of pollution.

- An environment cell has been established for monitoring and implementation of safe guard measures for environmental parameters.
- Three CAAQMS has been installed for real time monitoring of the ambient air quality.
- We have developed a full- fledged Nursery in approx. 3000 Sq. Ft. with a capacity of more than 1,00,000 saplings within our ML area to develop, preserve & cater the saplings during the course of plantation.
- Expenditure incurred on Environment & Pollution Control during the year 2019-20 is approx.. 388 lakhs.
- The Mine is certified with Environment Management System ISO- 14001: 2015 in July 2018.

MK Jha
15/09/2020

Date: 09.09.2020
Place: Doraguda

Mukesh Kumar Jha
Head- Mines

Annexure-1

Average Ambient Air Quality- 2019-20						
Baphlimali Bauxite Mine of Utkal Alumina International Limited						
Parameters	**Unit**	**Mining pit**	**Crusher**	**Weigh Bridge**	**Near Office**	**NAAQ Standard**
PM- 10	µg/m3	42.39	44.40	42.21	39.84	**100**
PM- 2.5	µg/m3	22.48	23.42	22.86	22.00	**60**
SO2	µg/m3	9.78	9.61	9.52	9.67	**80**
NOx	µg/m3	23.91	23.59	23.60	24.01	**80**
CO	mg/m3	0.52	0.48	0.47	0.48	**4 (1 Hr)**