

BALCO /ENVT/A-01(A)/17/371

27 September 2017

✓ To,
The Member Secretary,
Head Office, Chhattisgarh Environment Conservation Board,
Paryavas Bhawan, North Block, Sector-19,
Naya - Raipur (C.G.)


Sub: Environment Statement of Kawardha Mines for the financial year 2016-17.

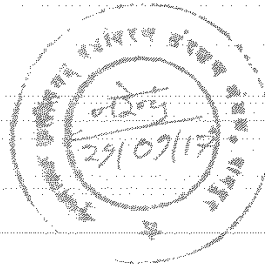
Dear Sir,

With reference to the captioned subject we are enclosing the Environment Statement of Bodai Daldali Kawardha Mines for the financial year 2016-17 in the prescribed Form - V under Section 6 and 25 of the Environment (Protection) Act - 1986.

Thanking You,

Yours faithfully,
For **Bharat Aluminium Company Ltd.**


Pramod Ranjan
Head-HSE (Mines)



Encls: a/a

Copy to: Regional Officer, CECB, Bilai - Durg

FORM – V

See Rule 14

Environmental statement for the financial year ending 31st March 2016

PART – A

i) Name and address of the mine: Kesmarda, Rabda,
Semsata, Mundadadar
Bodai – Daldali Bauxite Ore
Mines
Bharat Aluminium Co. Ltd.
KORBA (CG)

ii) Industry category Primary (SIC
Code) or Secondary (SIC Code) Primary

iii) Production capacity units: 12.5 Lac T/Year (Bauxite)

iv) Year of establishment: 2010

v) Date of the last Environmental statement submitted: 26 September 2016

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PART – B

WATER AND RAW MATERIAL CONSUMPTION

i) Water consumption in Kiloliters per day (KLD)

Spraying: 30 KLD
Domestic: 15 KLD

| Name of product | Process water consumption per product output | |
|-----------------|--|-----------------------------------|
| | During the financial year 2015-16 | During the financial year 2016-17 |
| Bauxite | NA | NA |

(ii) Raw Material Consumption:

| Name of Raw Material | Consumption of Raw Materials per unit of product | |
|-----------------------|--|-----------------------------------|
| | During the financial year 2015-16 | During the financial year 2016-17 |
| i. Power gel | 0.0015 kg/MT | 0.00040 Kg/MT |
| ii. Cordtex fuse | 0.5 Mtr/MT | 0.5186 Mtr/MT |
| iii. Ammonium nitrate | 0.28 Kg/MT | 0.2909 Kg/MT |

- Industry may use codes if disclosing details of Raw Materials would violate contractual obligations, otherwise all industries have to name the raw materials used.

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PART – C

POLLUTANT DISCHARGED TO ENVIRONMENT / UNIT OF OUTPUT
(Parameters as specified in the consent issued)

| Pollutants (Including Mine & Colony discharge of water | Quantity of pollutants Discharged | Concentrations of pollutants in Discharge | % of variation from prescribed standards with reasons |
|--|---|---|--|
| Air | | Annexure - A | Within norms |
| Water (Surface) | | Annexure – B | Within norms |
| Water (Ground) | | Annexure – B | Within norms |
| Noise | | Annexure – A | Within norms |

PART – D

(Hazardous Waste)

As specified under Hazardous Waste Management Handling rule

| Hazardous Waste | Total quantity (Kg) | |
|---------------------------------------|---|---|
| | During the current financial year 2015-16 | During the current financial year 2016-17 |
| a) From process | 0.0225 MT of Used Oil | 0.0125 MT Used Oil |
| b) From pollution Control facility | Nil | Nil |

Praveen Rana

PART – E

SOLID WASTES

| Removal of Overburden | Total quantity | |
|---------------------------------|-----------------------------------|-----------------------------------|
| | During the financial year 2015-16 | During the financial year 2016-17 |
| i) Total O.B. | 4022700 MT | 2823540 |
| ii) Total O.B. for back filling | 4022700 MT | 2823540 |
| iii) Total O.B. disposed | Nil | Nil |

PART – F

PLEASE SPECIFY THE CHARACTERISATION (IN TERMS OF COMPOSITION AND QUANTUM) OF HAZARDOUS AS WELL AS SOLID WASTES AND INDICATE DISPOSAL PRACTICES ADOPTED FOR BOTH THESE CATEGORIES OF WASTES.

The mining activity carried out at Bodai - Daldali mines is to excavate bauxite ore from the reserves present there-under. The ore consists of mineral which has a composition of bauxite and remaining of solid waste which is also known as overburden. The overburden is generally comprised of morrum (55%), soil (30%) and followed by laterite (15%). The top soil generated during mining is stored at earmarked location and used later on during reclamation. No hazardous waste is generated during the mining activity.

Overburden thus obtained during the mining activity is disposed by using it for carrying out the reclamation of mined out areas. Reclamation of mined out areas is carried out in a systematic manner by back filling them with overburden and waste after sorting of bauxite from ROM obtained during course of mining. After backfilling, area is leveled to the original level as far as possible, compacted and covered with top soil stored in the earlier cycle of mining for afforestation.

Praveen Kumar

PART – G

IMPACT OF THE POLLUTION ABATEMENT MEASURE TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION

We are carrying out monitoring of the environmental parameters and complying with all the norms, guidelines and regulations as stipulated by statutory bodies. There is a full fledged Health, Safety & Environment Department and Laboratory Department that work in co-ordination for conducting environmental monitoring and pollution control operations. There is indeed a positive impact on the environment due to pollution abatement measures taken on conservation of natural resources. The pollution, if any, is dealt with at source, thereby reducing the pollutants entering into the environment.

Impacts of pollution abatement measures such as construction of stop dams/ check dams in the course of natural streams have drastically reduced the silt content in surface water by arresting at upstream locations. This has also helped in recharging the groundwater table of the adjoining areas.

Reclamation of the mined out areas has solved the nuisance of overburden being generated during the mining activity. Afforestation of these reclaimed areas has in turn given an aesthetic look to the mine leases.

Blasting operations are carried out in the period between 1.00 PM to 2.00 PM in a controlled manner due to which the danger of fly rocks is negated. The dust levels are also drastically reduced with this technique. Wet drilling is already in practice and hence the fugitive emission levels are also within norms and control.

PART – H

ADDITIONAL MEASURES / INVESTMENT PROPOSALS FOR ENVIRONMENTAL PROTECTION INCLUDING ABATEMENT OF POLLUTION, PREVENTION OF POLLUTION.

In order to abate the negative impacts generated due to mining activity and also for the conservation of natural resources, the environmental management initiatives are taken up which are summarized as below;

- Wet drilling is practiced for minimization of dust generation.
- Maintenance of pucca roads and water sprinkling on haul roads.

Pranav Reddy

- Mined out areas reclaimed by backfilling of overburden and covered by top soil on top. Afforestation is carried out on top of reclaimed areas.
- Waste dump handling and stabilization are carried out efficiently keeping environment protection and bio-diversity improvement in mind.

PART – I

ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF THE ENVIRONMENT

- In year 2016-17, we have planted 12000 saplings in the mined out area & as green belt between the mining area
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- Blasting operation is restricted only between 1 to 2 PM during the daytime. Controlled blasting reduces the noise generation as well as ground vibration to as low as possible.

Prasad Kumar