

BALCO /ENVT/ A-01(A)/2017/ 370

27 September 2017

To,

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

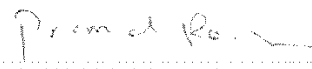
**Sub:** Environment Statement of Mainpat Mines for the financial year 2016-17

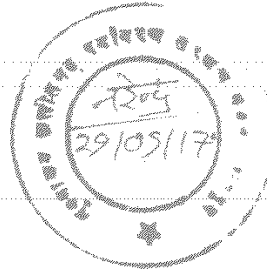
Dear Sir,

With reference to the captioned subject, we are enclosing the Environment Statement for Mainpat Mines, BALCO 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: - As Above.

Copy to:

Regional Officer, Chhattisgarh Environment Conservation Board, Ambikapur

FORM - V

See Rule 14

Environmental statement for the financial year ending 31<sup>st</sup> March 2016

PART - A

- i) Name and address of the mine: Mainpat Bauxite Mines  
Bharat Aluminium Co. Ltd.  
KORBA (CG)
- ii) Industry category Primary (SIC Code) or Secondary (SIC Code) Primary
- iii) Production capacity units: 7.5 Lacs T/Year (Bauxite)
- iv) Year of establishment: 2008
- v) Date of the last Environmental statement submitted: 26 September 2016

PART - B

WATER AND RAW MATERIAL CONSUMPTION

i) Water consumption in Kiloliters per day (KLD)

Spraying: 250 KLD

Domestic: 150 KLD

(as per agreement)

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

*Handwritten signature/initials*

(ii) Raw Materials Consumption:

| Name of Raw Materials | Consumption of Raw Materials per unit of product |                                   |
|-----------------------|--|-----------------------------------|
|                       | During the financial year 2015-16                | During the financial year 2016-17 |
| i. Nitrate Mixure     | 0.17 Kg/ MT                                      | 0.33 Kg/ MT                       |
| ii. Cordtex fuse      | 0.16 Mtr/MT                                      | 0.65 Mtr/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.

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 - I                              | Within norms  |
| Water (Surface)   |                                   | Annexure - II                             | Within norms  |
| Noise   |                                   | Annexure - I                              | Within norms  |

PART - D

(Hazardous Waste)

As specified under Hazardous Waste Management Handling rule

| Hazardous Waste                    | Total quantity (Kg)               |                                   |
|------------------------------------|-----------------------------------|-----------------------------------|
|                                    | During the financial year 2015-16 | During the financial year 2016-17 |
| a) From process                    | Nil                               | Nil                               |
| b) From pollution Control facility | NA                                | NA                                |

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**PART – E**  
**SOLID WASTES**

| Removal of Overburden           | Total quantity (MT)               |                                   |
|---------------------------------|-----------------------------------|-----------------------------------|
|                                 | During the financial year 2015-16 | During the financial year 2016-17 |
| i) Total O.B.                   | Nil                               | 735725                            |
| ii) Total O.B. for back filling | Nil                               | 735725                            |
| iii) Total O.B. disposed        | 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 Mainpat Bauxite 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.

*TR R*

## 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 1.00PM to 2.00PM 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 generating 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.
- Construction of pucca roads and water sprinkling on haul roads.

- Mined out areas reclaimed by backfilling of overburden and covered by top soil on top. Afforestation is carried out on top of reclaimed areas.
- During year 2016-17, 15000 saplings have been planted in and around the Mines.
- Total Six mined out pits have been developed as Rainwater Harvesting structure.
- Waste dump handling and stabilization are carried out efficiently keeping environment protection and bio-diversity improvement in mind.
- Rs 11.20 Lakhs invested for the construction & maintenance of check dams, stop dam and water reservoir.

#### PART – I

#### ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF THE ENVIRONMENT

- Total 66 Check dams have been constructed which act as a barrier. Particles are allowed to settle down to ensure that the overflow is clearer.
- Accumulated silt is removed & thoroughly cleaned before onset of monsoon
- 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.

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