

No.J-11011/ 34/2003-IA II(I)
Government of India
Ministry of Environment & Forests
I.A.Division

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Paryavaran Bhavan, CGO Complex,
Lodi Road, New Delhi-110003
Dated the November 5, 2003

To

The President
M/s Bharat Aluminium Company Limited
PO Balco Nagar, Korba(CG)
Pin 495684

Sub: Expansion of Alumina refinery and Aluminium Smelter plant by M/s Bharat Aluminium Co. Limited at Korba in Chhattisgarh - environmental clearance reg.

Sir,

This has reference to your communication No. BALCO/ENV/03/A-19/40 dated February 21, 2003 along with application, EIA /EMP and related project documents, CD and subsequent clarifications furnished by you vide your letters dated 23.04.2003, 05.06.2003, 10.07.2003, 30.08.2003 & 13.10.2003 and letter no. 3296/2003 dated 06.09.2003 from the Govt. of Chattisgarh, Environment & Urban Development Department for environmental clearance on the above-mentioned project. The Ministry of Environment and Forests has examined your application. It is noted that expansion proposal involves production of 8.0 lacs TPA of alumina and 4.0 lacs TPA of aluminium metal. The Company would adopt Bayer process for alumina refinery and Centre Worked pre-baked technology for Aluminium smelter.

The Company is in the possession of 271 ha. of land. The proposed expansion would be in the existing plant premises. No additional land will be required. The project does not involve diversion of forestland and displacement of people. The water requirement of 8040 m3/day would be met from the River Hasdeo. Permission to draw water from the State Investment Promotion Board has been obtained on October 22, 2002. Public hearing panel has considered the project in the meeting held on 27.09.2002. The Chhattisgarh Environment Conservation Board has granted NOC on 17.02.2003. Total cost of the project is Rs. 4000 crores

2.0. The Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 27th January, 1994 as amended subsequently subject to strict compliance of the following specific and general conditions:

A. SPECIFIC CONDITIONS

1. The gaseous emissions from various process units should conform to the standards prescribed from time to time. The State Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry, its size and location. At no time the emission level should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective

unit should not be restarted until the control measures are rectified to achieve the desired efficiency. Ambient air quality monitoring stations should be set up in consultation with the Chhattisgarh Environment Conservation Board. Data should be regularly monitored and records maintained and report submitted to the Ministry/ CPCB/CECB once in six months.

- ii. There should be no discharge of process effluent. As reflected in the EIA/EMP report, the proposed refinery and smelter plant shall be designed for zero discharge. In addition, efforts shall be made to re-use wastewater from the existing plant. The domestic wastewater after treatment in Sewage Treatment Plant should be used for green belt development.
- iii. In plant control measures for checking fugitive emission from spillage/ raw materials handling should be provided. Fluoride emissions should be monitored from the existing pot room, proposed pot room and in the forage around the smelter complex. Further, dry scrubbing system to control the emissions from the pot lines should be provided. The fluoride emissions shall not exceed 0.8 kg/t of aluminium produced.
- iv. The particulate emissions from the new calciner shall be controlled by installation of electrostatic precipitator. The particulate emissions shall not exceed 150mg/Nm³. All the boiler stacks shall be provided with stack height as per the CPCB guidelines. The boiler and calciner stacks should be equipped with continuous monitoring device to check SPM emission levels. The NO_x emission from boiler and calciner stacks shall be less than 50ppm as guaranteed by the manufacturers. Low NO_x burners should be installed to control the NO_x emissions.
- v. The poly-aromatic hydrocarbons from the carbon plant (anode bake oven) should not exceed 2mg /Nm³.
- vi. The Company should adopt dry disposal (High concentration slurry disposal) system for red mud disposal. The ground water quality should be monitored around the red mud ponds by providing piezometric holes.
- vii. The spent pot lining generated from the smelter should be utilized for cement /steel manufacturing alternatively to be disposed off in a secured landfill constructed as per the design of CPCB. The location of the landfill site should be approved by the Chhattisgarh Environment Conservation Board.
- viii. A green belt of adequate width and density should be developed in an area of 90 acre within and around the plant premises as per the CPCB guidelines.
- ix. Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- x. All the recommendations of the Charter for Corporate Responsibility for Environment Protection (CREP) for the aluminium sector should be strictly implemented.

B. GENERAL CONDITIONS:

- i. The project authorities must strictly adhere to the stipulations made by the Chhattisgarh Environment Conservation Board and the State Government.

- ii. No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests.
 - iii. Adequate ambient air quality-monitoring stations should be established in the downward direction as well as where maximum ground level concentration of SPM, SO₂ and NO_x are anticipated in consultation with the State Pollution Control Board. Data on ambient air quality, fugitive emission and stack emissions should be regularly submitted to this Ministry including its Regional Office at Bhopal and the State Pollution Control Board/Central Pollution Control Board once in six months.
 - iv. Industrial waste water should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. The treated wastewater should be utilized for plantation purpose.
 - v. The overall noise levels in and around the plant area should be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).
 - vi. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP report. Further, the company must undertake socio-economic development- activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.
 - vii. The project authorities will provide adequate funds both recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purposes.
 - viii. The Regional Office of this Ministry at Bhopal/Central Pollution Control Board/State Pollution Control Board will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation should be submitted to them regularly.
 - ix. The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>. This should be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office.
 - x. The Project Authorities should inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.
- 3.0. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

4.0. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner will implement these conditions.

5.0. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Rules, 1989/2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.


(Dr. P. L. Ahujara)
Addl. Director

Copy to:

1. The Secretary, Environment, Room. No. 236 Dau, Kalyan Singh Bhawan, Mantralaya, Government of Chhattisgarh, Raipur-492001
2. The Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office, Link Road No.3, E - 5, Arera Colony, Bhopal - 462 018.
3. Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar New Delhi - 110 032.
4. Chairman Chhattisgarh Environment Conservation Board, Nanak Niwas, Civil Lines, Raipur (CG).
5. Sr. Adviser (EI division), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Director (Monitoring Cell), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
7. Guard File.
8. Monitoring File.
8. Record File.


(Dr. P. L. Ahujara)
Additional Director