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for n.a. pl.

TO: 22256461350

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→ GM (Env)/N.Thiru

24/6/04

BY SPEED POST

No. J-13011/3/2003.IA-II(T)
Government of India/ Bharat sarkar
Ministry of Environment & Forests
(Paryavaran Aur Van Mantralaya)

Paryavaran Bhawan,
CGO Complex, Lodi road,
New Delhi-110003
Dated: 23rd June, 2004

To
The President,
Bharat Aluminium Company Ltd.,
11 Floor, Core-6,
Scope Office Complex,
7-Lodi Road, New Delhi-110003.

Subject: 675 MW Coal Based Captive Power Plant, Korba, Chhattisgarh of M/s
Bharat Aluminium Company Ltd - Environmental clearance reg

Sub:

- The undersigned is directed to refer to your communications No. BALCO/ENV/03/A-19/40 dated 21.2.2003, 23.4.03, 24.5.03 & 12.2.04 on the above mentioned subject.
- The proposal is regarding setting up 675 MW Captive Power Plant in the premises of existing plant area. No additional land is required. No forest land is involved. No ecologically sensitive area is involved. Coal requirement will be 10800 TPD. Ash & Sulphur content in the coal is 40% and 0.3-0.5 % respectively. Fly ash generation will be 3840 TPD in dry form and 5486 TPD in wet form. Bottom ash will be 480 TPD dry and 686 TPD wet form. Ash utilisation is reported in Bricks, Cement, Road Construction, Landfill, Soil embankment, Mine stowing & ash ponds. Water requirement will be 51240 m³/day and will be met from Hasdeo Barrage on river Hasdeo. Public hearing was held on 27.9.2002 and NOC was issued by Chhattisgarh Environment Conservation Board on 17.2.2003. Capital cost of the project is Rs. 2000.00 Crores which includes Rs 100.00 crores for environmental protection measures.
 - The environmental clearance for the above project is hereby accorded subject to implementation of following terms and conditions:

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- i) All the conditions stipulated by Chhattisgarh Environment Conservation Board vide their letter no. 580/TS/CECB/2002 dated 17.2.2003 should be strictly implemented.
- ii) No additional land shall be acquired.
- iii) Coal requirement is estimated at 10800 TPD having calorific value of 3000-3675 K.Cal/kg with 40% ash content and 0.3-0.5% sulphur content. Copy of coal linkage approval should be submitted to the Ministry within three months.
- iv) A single flue stack of 275 m height shall be provided with continuous online monitoring equipment.
- v) High efficiency Electrostatic Precipitator (ESP) should be installed to limit outlet SPM emission 75 mg/Nm³.
- vi) Space provision should be made for Flue Gas De-sulphurisation (FGD) unit.
- viii) Ash generation will be 9326 TPD fly ash and 1166 TPD bottom ash. Ash disposal would be done through high concentration slurry disposal system on abandoned red mud pond. Fly ash utilisation plan should be submitted to the Ministry within three months. Ash generated should be used in a phased manner as per provisions of the notification on Fly Ash Utilisation issued by the Ministry in September, 1999 and its subsequent amendments. By the end of 9th year full fly ash utilisation should be ensured.
- ix) Necessary drainage network at the proposed CPP site should be developed.
- x) Water requirement should not exceed 51240 m³/day. No ground water and/or other surface water should be used. Copy of confirmed water withdrawal should be submitted to the Ministry within three months.
- xi) Waste water of coal handling plant should be treated before disposal.
- xii) Appropriate water harvesting technology should be finalised in consultation with Central Ground Water Authority/Board, within a period of two months from the date of issue of the clearance letter.
- xiii) Regular monitoring of water quality including heavy metals should be undertaken around ash disposal and the project area to ascertain change in the water quality, if any, due to leaching of contaminants from ash disposal area.

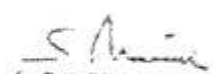
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- xiv). Study on fluoride concentration in foliage, analysis of ground water and storm water runoff from the existing CPP site drains should be carried out regularly.
- xv). Noise level should be limited to 75 Leq and regular maintenance of equipment be undertaken. For people working in the area of generator and other high noise area, earplug should be provided.
- xvi). A greenbelt should be developed around the power plant periphery and ash pond area, covering an area of 75 acres. Tree density of 1500-2000 trees per ha should be maintained. Greenbelt development plan should be submitted to the Ministry.
- xvii). Regular monitoring of the air quality should be carried out in and around the power plant and records be maintained. Periodic six monthly reports should be submitted to this Ministry.
- xviii). For controlling fugitive dust, regular sprinkling of water in vulnerable areas of the plant should be ensured.
- xix). Recommendations of the Chhattisgarh State Bio-diversity Strategy and Action Plan(CBSAP) be implemented and the conservation plan for likely habitat of migratory Elephants from Orissa be prepared in consultation with State Wildlife Deptt.
- xx). All other mitigative measures shall be taken as enumerated in Chapter 3 of the EIA report.
- xxi). The project proponent should advertise at least in two local newspapers widely circulated in the region around the project, one of which should be in the vernacular language of the locality concerned informing that the project has been accorded environmental clearance and copies of clearance letters 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>.
- xxii). A separate environment monitoring cell with suitable qualified staff should be set up for implementation of the stipulated environmental safeguards.
- xxiii). Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards should be submitted to this Ministry/ Regional Office/CPCB/SPCB.
- xxiv). Regional Office of the Ministry of Environment & Forests located at Bhopal will monitor the implementation of the stipulated conditions. Complete set of Environmental Impact Assessment Report and Environment Management Plan should be forwarded to the Regional Office for their use during monitoring.

xxv). Separate funds should be allocated for implementation of environmental protection measures alongwith item-wise break-up. These cost should be included as part of the project cost. The funds earmarked for the environment protection measures should not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.

xxvi). Full cooperation should be extended to the Scientists/Officers from the Ministry/Regional Office of the Ministry at Bhopal /the CPCB/the SPCB who would be monitoring the compliance of environmental status.

4. The Ministry reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry.
5. The environmental clearance accorded shall be valid for a period of 5 years for construction/operation of the power plant. In case, if the project authorities fails to do so within this stipulated period, this environmental clearance shall stand lapsed automatically.
6. In case of any deviation or alteration in the project proposed from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.
7. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the Public Liability Insurance Act, 1991 and its amendments, the Environment Impact Assessment Notification of January, 1994 and its amendments.


(S.BHOWMIK)
ADDITIONAL DIRECTOR

Copy to:

1. Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi-110001.

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2. Secretary, Department of Environment, Dau Kalyan Singh Bhawan, Raipur-492001
3. Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
4. Chairman, Chhattisgarh Environment Conservation Board, Nanak Niwas, Civil Lines, Raipur-492001 with respect to display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's office for 30 days.
5. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
6. Chief Coservator of Forests, Regional Office (WR), MOEF, Kendriya Paryavaran Bhawan, Link Road No.3E Ravi Shankar Marg, Bhopal-462016
7. Director(EI), MOEF
8. Guard file.
9. Monitoring file.


(S.BHOWMIK)
ADDITIONAL DIRECTOR