

No.J-11015/37/2004.IA.II (M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
C.G.O. Complex, Lodi Road,
New Delhi - 110 003

Dated the 30th September 2005

To

Shir S.K. Shome,
General Manager (A&P),
M/s Raipur Alloys & Steel Ltd.,
P -149, Industrial Area,
Near Urkura Railway Station,
Raipur-493221,
Chattisgarh

Subject: Karwahi opencast coal mining project, sub-block IV/7 of M/s Raipur Alloys & Steel Ltd. located in Village(s)-Karwahi, Khamaria, Dholnara, Sanaitola, Gare & Bajarmuda, Tehsil- Ghargoda, District - Raigarh, Chattisgarh- environmental clearance reg.

Sir,

This has reference to your letter No. RASL/CCM/Env/04/56 dated 22.06.2004 and subsequent letters dated 11.01.2005, 23.03.2005, 26.05.2005 and 15.09.2005 on the subject mentioned above. The Ministry of Environment and Forests has examined the application. It has been noted that the proposal is for opening of a new mine and has been granted site clearance by the Ministry on 06.09.2004. Total lease area of the project is 335.736 ha out of which 319.257 ha is an agricultural land and 16.479 ha is others (Government land). Area proposed for mining is 267.472 ha, an area of 3.0 ha is kept for top soil storage, 17.0 ha OB dumps, 1.75 ha for infrastructure, 1.0 ha for roads, 33.50 ha for green belt, 2.07 ha for CHP and 9.943ha for others (nursery barrier). Township is proposed out side the mine lease in 10.0 ha area. Forestland is not involved. There is no population in the core zone and therefore displacement of population is not involved, however, land of 504 people will be acquired and land oustees will be compensated as per the State Government norms. No ecologically sensitive area such national park/sanctuary/biosphere reserve etc. reported within 10 km radius of the project. Silot and Tolge East RF are in the buffer zone. The annual targeted production capacity of the mine is 1.2 Million Tonnes. Working will be opencast by mechnaised method involving drilling and blasting. Ultimate working depth is 48 m bgl. Total water requirement is 740 m³/day which will be met from ground water. The project involves removal of about 190.42 Mm³ of over burden, out of which 14.64 Mm³ will be dumped externally and remaining 175.78 Mm³ will be backfilled. Backfilling will be start from 6th year onwards. Permission for drawal of ground water from Central Ground Water Authority obtained on 29.10.2003 for drawal of 0.22 Mm³ of ground water annually. NOC from the State Pollution Control Board obtained on 22.09.2003 for production capacity of 1.2 MTPA. Public hearing for the project was conducted by Chhattisgarh Environment Conservation Board on 08.01.2003. Ministry of Coal has approved mining plan on 06.02.2003. Capital cost of the project is Rs.250 lakhs.

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2. The Ministry of Environment and Forests hereby accords environmental clearance to the above mentioned coal mining project of M/s Raipur Alloys and Steel Ltd. for production capacity of 1.2 MTPA Coal by opencast method involving total lease area of 335.736 ha under the provisions of the Environment Impact Assessment Notification, 1994 as amended on 04.05.1994 and 10.04.1997 subject to strict compliance of the terms and conditions mentioned below:

A. Specific conditions

- (i) The environmental clearance is subject to approval of the State Landuse Department, Government of Chhattisgarh for diversion of agricultural land for non-agricultural use.
- (ii) Top soil should be stacked properly with proper slope at earmarked site(s) with adequate measures and should be used for reclamation and rehabilitation of mined out area.
- (iii) OB dumps should be stacked at earmarked dump site(s) only and should not be kept active for long period. Proper terracing of OB dump should be carried out so as to ensure that the overall slope does not exceed 28 degree. Backfilling should start from 6th year onwards. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests on yearly basis.
- (iv) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted and maintained properly.
Garland drains (size, gradient & length) shall be constructed for both mine pit and for the waste dump. Sump capacity should be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains.
- (v) Dimension of the retaining wall at the toe of dumps and OB benches within the mine to check run-off and siltation should be based on the rain fall data.
- (vi) Green belt should be raised in an area of 33.50 ha by planting the native species around the ML area, Coal Handling Plant, roads, OB dump sites etc. in consultation with the local DFO / Agriculture Department. The density of the trees should be around 1500 plants per ha.
- (vii) The project authorities should meet the water requirement of nearby village(s) in case the village wells go dry due to de-watering of the mine.
- (viii) The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.

- (ix) Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out four times in a year - pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to MOEF, Central Ground Water Authority and Regional Director Central Ground Water Board.
- (x) Coal handling plant should be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
- (xi) Sewage treatment plant should be installed for the colony. ETP should also be provided for workshop and CHP wastewater.
- (xii) Consent to operate should be obtained from SPCB before starting production from the mine.
- (xiii) Drills should either be operated with dust extractors or should be equipped with water injection system.
- (xiv) Blasting operation should be carried out only during the daytime. Controlled blasting should be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.
- (xv) Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to MOEF and its regional office.
- (xvi) Vehicular emissions should be kept under control and regularly monitored.
- (xvii) A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.

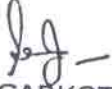
B. General conditions

- (i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.
- (ii) No change in the calendar plan including excavation, quantum of mineral coal and waste should be made.
- (iii) Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RPM, SPM, SO₂, NO_x & CO monitoring. Location of the stations should be decided based on the meteorological data, topographical features, and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.

- (iv) Data on ambient air quality (RPM, SPM, SO₂, NO_x & CO) should be regularly submitted to the Ministry including its Regional office at Bhopal and the State Pollution Control Board / Central Pollution Control Board once in six months.
- (v) Drills should be wet operated or with dust extractors and controlled blasting should be practised.
- (vi) Fugitive dust emissions from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading & unloading) should be provided and properly maintained.
- (vii) Adequate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operations of HEMM, etc should be provided with ear plugs / muffs.
- (viii) Industrial waste water (workshop and waste water from the mine) 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. Oil and grease trap should be installed before discharge of workshop effluents .
- (ix) Acid mine water, if any, has to be treated and disposed of after conforming to the standard prescribed by the competent authority.
- (x) Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.
- (xi) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.

Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to coal dust and take corrective measures, if needed.
- (xii) A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- (xiii) The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office located at Bhopal.
- (xiv) The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.

- (xv) A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom and suggestion / representation has been received while processing the proposal.
- (xvi) State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.
- (xvii) The project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and may also be seen at web site of the Ministry of Environment & Forests at <http://envfor.nic.in> and a copy of the same should be forwarded to the Regional Office of this Ministry located Bhopal.
3. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
4. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
5. 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 and the Public Liability Insurance Act, 1991 along with their amendments and rules.


(SATISH C. GARKOTI)
Additional Director

Copy to:

1. Secretary, Ministry of Coal, Government of India, Shastri Bhawan, New Delhi.
2. Secretary, Department of Environment, Government Chhattisgarh, Secretariat, Raipur
3. Secretary, Department of Forests, Government of Chhattisgarh, Secretariat, Raipur
4. Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office(WZ), E-2/240 Arera Colony, Bhopal-462 016.
5. Chairman, Central Pollution Control Board, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
6. Chairman, Chattisgarh Environment Conservation Board, 14/3 Park Street, Choubey Colony, Raipur.
7. Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.

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8. District Collector Raigarh District, Chhattisgarh.
9. EI Division, Ministry of Environment & Forests, EI Division, New Delhi.
10. Monitoring File:
11. Guard File.
12. Record File.