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No.J-11015/96/2004-IA.II (M)
Government of India
Ministry of Environment & Forests

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

Dated the 10th November 2005

To,

President(Corp.Affairs)
(Shri A.K.Chaturvedi)
M/s Prakash Industries Ltd.
(Coal Mining Operations)
A-10, Songanga Colony,
Seepat Road, BILASPUR-495 006
Chhattisgarh

Subject: Chotia I Captive coal mining project of M/s Prakash Industries Ltd. located in Village(s) Chotia and Baniya, Tehsil Katghora, District Korba, Chhattisgarh - environmental clearance reg.

Sir,

This has reference to your letter No.PIL/MINES/BSP/MoEF/2004-05 dated 11.12.2004 and subsequent letters dated 27.12.2004, 05.03.2005, 06.04.2005, 09.06.2005 and 17.08.2005 regarding project 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. Total lease area of the project is 1101.03 ha, out of which 801.1 ha is forestland, 56.838 ha is Government land and 243.105 ha is private land. Area proposed for mining 268 ha, 8.06 is for OB dumps, 14.60 ha for infrastructure, 40.12 ha for roads and barriers, 20.0 ha for green belt, 10.56 ha for incline shaft, 10.0 ha for ETP, 3.0 ha for CHP, 28.26 ha from magazine and safety zone, 190.443 ha for safety zone (undisturbed) and 508 ha for UG mining operation. No ecologically sensitive area such as National park/ sanctuary, BR/TR/ER etc. reported in the core as well as buffer zone. Baniya RF and Lad RF are in the core zone. There is no population in the core zone, displacement of population is not involved. The annual targeted production capacity of the mine is 0.75 Million Tonnes by working both opencast and underground method. Drilling and blasting is involved. Ultimate working depth is 30 m bgl for opencast working and 250 m bgl for underground working. Total water requirement for the project is 500 m³/day which will be met from the borewells in the mine site. It is proposed that 9259.3 m³/month of top soil and 148534 m³/month of OB will be generated. A total of 48.125mm³ of OB will be generated which will be backfilled. Backfilling will start from 3rd year onwards. NOC from the Chhattisgarh Environment Conservation Board obtained on 30.10.2004. Public hearing for the project was conducted by the Chhattisgarh Environment

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Conservation Board on 04.09.2004. Ministry of Coal, Government of India has approved combined mining plan for Chotia-I & Chotia-II coal blocks on 04.08.2004. Capital cost of the project is Rs.7.24 crores.

2. The Ministry of Environment and Forests hereby accords environmental clearance to the above mentioned coal mining project of M/s Prakash Industries Ltd. for both opencast and underground working for ultimate production capacity of 0.75 MTPA involving total lease area of 1101.03 ha under the provisions of the Environment Impact Assessment Notification, 1994 as amended subsequently under Environment (Protection) Act, 1986 subject to implementation of the following conditions/safeguards.

A. Specific conditions

- (i) The environmental clearance is subject to grant of forestry clearance by Ministry of Environment and Forests for diversion of 801.10 ha forestland under the provisions of Forest (Conservation) Act, 1980.
- (ii) Top soil should be stacked 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 that the overall slope will come down to 28 degree. Backfilling should start from 3rd year onwards. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Progress report should be submitted to the Ministry of Environment & Forests on 6 monthly 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 drain (size, gradient and length) and sump capacity should be designed keeping 50% safety margin over and above 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.
- (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.

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- (vi) During underground working regular monitoring of subsidence movement on the surface over working area and impact on water bodies/vegetation/structures/surrounding should be continued till movement ceases completely. In case of observation of any subsidence movement, mitigative measures should be taken to avoid loss of life and material. Cracks should be effectively plugged with ballast and clayey soil/suitable material.
- (vii) During underground working project authorities should check the possibility of existence of fault(s) before deciding about the thickness of safe barrier required to be maintained between the working face and the river in consultation with the Director General Mines & Safety (DGMS). De-pillaring should also be carried out after taking prior approval of the DGMS.
- (viii) Stage wise seam development plans incorporating subsidence study and its reports starting from 5th year of underground operation till the end of the mine at an interval of 5 years should be submitted to the Ministry within six months.
- (ix) Mine entries/ coal evacuation/ ventilation systems should be above the highest flood level to avoid any anticipated flooding of mine from surface water during rainy season.
- (x) Green belt should be raised by planting the native species around the ML area, Coal Handling Plants, roads, OB dump sites etc. in consultation with the local DFO / Agriculture Department. The density of the trees should be around 2500 plants per ha.
- (xi) The project authorities should meet the water requirement of nearby village(s) including agricultural need/ well water in case the village wells go dry due to de-watering of the mine from mine discharge after proper settling/treatment.
- (xii) 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.
- (xiii) 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 Ministry of Environment & Forests, Central Ground Water Authority and Regional Director Central Ground water Board.

- (xiv) Permission from the competent authority should be obtained for drawal of water required for mining and domestic use.
- (xv) 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.
- (xvi) Sewage treatment plant should be installed for the colony. ETP should also be provided for workshop and CHP wastewater.
- (xvii) Consent to operate should be obtained from SPCB for the enhanced production.
- (xviii) 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.
- (xix) The project proponent should take all precautionary measures during mining operation for conservation and protection of endangered fauna namely *Melursus urcinus* (bear) etc. spotted in the study area in consultation with the concerned forest officials. Action plan for conservation of endangered fauna should be prepared and submitted to the Ministry and its Regional Office within 3 months.
- (xx) 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) Conservation measures for protection of flora and fauna in the core & buffer zone should be drawn up in consultation with the local forest department and experts.

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- (iv) 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.
- (v) 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.
- (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. Vehicular emission should be kept under control and regularly monitored.
- (vii) Drills should either be operated with dust extractors or should be equipped with water injection system.
- (viii) 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.
- (ix) 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 .
- (x) Acid mine water, if any, has to be treated and disposed of after conforming to the standard prescribed by the competent authority.
- (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>.
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 environmental clearance accorded shall be valid for a period of 5 years for starting construction/operation of the power plant. In case, the project authorities fail to do so within this stipulated period, this environmental clearance shall stand lapsed automatically.

6. 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 (S)

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


(SATISH C. GARKOTI)
Additional Director (S)