

No.J-11015/235/2006-IA.II(M)
Government of India
Ministry of Environment & Forest

Paryavaran Bhawan,
C.G.O. Complex, Lodi Road,
New Delhi-110003

Dated 8th May 2007

To,
Chief General Manager,
NCL Nigahi Project,
M/s Northern Coalfields Limited,
District – Sidhi,
Madhya Pradesh

Subject:- Expansion of Nigahi Opencast Coal Mine Project (expansion in production from 10 MTPA to 15 MTPA) of M/s Northern Coalfields Limited (NCL), located in village – Nigahi in District - Sidhi, Madhya Pradesh – environmental clearance – reg.

Sir,

This has reference to the letter No. 43011/98/2006-CPAM dated 31.07.2006 forwarding your application and subsequent letter of M/s Coal India Ltd. Dated 25.10.2006 and your letter dated 29.04.2007, on the above-mentioned subject. The Ministry of Environment & Forest has considered your application. It is noted that the application is for environmental clearance for expansion in production in the existing Nigahi Opencast Coalmine Project to meet the requirements of the Vindhyachal Super Thermal Power Station of M/s NTPC. Environmental clearance was obtained twice on 18.10.1987 and on 28.02.1996. The present proposal is for expansion in production from 10 MTPA to 15 MTPA rated capacity without any increase in the lease area. There are no ecologically sensitive areas such

as National Parks, Wildlife sanctuaries, Biosphere Reserves, etc. within the core zone and 10km of the buffer zone. Forestry clearance for 874.14 ha of forestland was obtained on 18.06.1987. No endangered flora and fauna has been found in the mine lease area. Of the total lease area of 3036.4 ha, area for excavation is 1665 ha of which broken area is 500ha and to be broken is 1165ha, of the 418 ha area for external OB dump, 300 ha is in use and 118 ha is to be used, workshop area is 74 ha, colony area 265 ha, green belt is 335 ha, other infrastructure is 61.50 ha which includes a CHP(30ha), and undisturbed area is 182.40 ha. The project does not involve mineral beneficiation. The area is drained by Bijui nala, Moewa nala, and south by G.B. pant Sagar through Motwani/Amjhar nala. Kachan River flows at a distance of 7 km from the lease. The project does not involve modification of the natural drainage. Project involves R & R for 4 villages within the ML and 8 villages in the township site involving 1309 project affected families. Of this, R & R has been completed 1309 persons and presently 390 persons are to be rehabilitated. Mining is opencast by mechanized method. Annual rated capacity of the mine is 15 MTPA of coal production by deploying higher capacity equivalent such as draglines, shovel-and-dumper. Mineral transportation of 45,455 TDP of coal is by rail. Present working depth is 140m below ground level (bgl). Ultimate working depth of the mine of the mine is 250m bgl. Water table is in the range of 2677-4.62m bgl in the core zone and 3.38-6.98 bgl in the buffer zone. Mining has intersected water table. Peak water requirement is 14600m³/d, of which 6900 m³ is from mine sump and 7700m³ is from GBP sagar through Integrated Water Supply Scheme of the company. Of the total OB generation of 1776.65 Mm³, as estimated 1545.65 Mm³ of OB will be backfilled and balance 231 Mm³ stored in external dump of 418 ha area and reclaimed. At the end of mine life, the excavated quarry area would be backfilled except for 60 ha of the void which would be converted in to a water body. Balance life of the mine at the rated capacity of 15 MTPA is 31 years. Public Hearing was held by M.P. S.P.C.B. on 18.12.2006 . The project has been approved by M/s NCL on 20.06.2005. The capital cost of the project is Rs 2755.13 crores.

2. The Ministry of Environment & Forest hereby accords environmental clearance for the above-mentioned Nigahi Opebcast Coal Mine Expansion Project of M/s NCL for expansion in production of coal from 10 MTPA to 15 MTPA rated capacity in a total lease area 3036.40 ha under section 12 of the Environmental Impact Assessment Notification, 2006 and subsequent amendments thereto and under para 2.1.1 of MOEF

Circular dated 13.10.2006 subject to the compliance of the conditions mentioned below:

A) SPECIFIC CONDITIONS

(i) No Mining shall be carried out in the forestland for which forestry clearance has not been obtained.

(ii) Topsoil shall be stacked properly with proper slope at earmarked site(s) and should not be kept active and shall be used for reclamation and development of green belt.

(iii) OB generated shall be stored in two external waste dump of 418 ha, and a max. height of 150m, consisting of 5 benches of 30m each, which will be stabilized with plantation, and the ultimate slope of the dump shall not exceed 28°. Monitoring and management of reclaimed dumpsite should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional office located at Bhopal on an 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 belts development, etc. The drains should be regularly desilted and maintained properly.

Garland drains (size, gradient and length) and 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 provided adequate retention period to allow proper settling of silt material.

(v) Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.

(vi) In-pit Crushers and crusher at CHP shall be operated with high efficiency bag filters, water sprinkling system should be provided to check fugitive

emissions from crushing operations, conveyor system, haulage roads, transfer points, etc.

(vii) Major approach roads and haul roads shall be metal topped.

(viii) Drill should be wet operated only.

(ix) Controlled blasting should be practiced with use of delay detonators and only during daytime. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented.

(x) A progressive afforestation plan shall be implemented covering a total area of not less than 2323 ha, which includes reclaimed external OB dump and backfilled quarry (1823 ha), along ML boundary, along roads and infrastructure, green belt (335 ha) along undisturbed area and in colony by planting native species in consultation with local DFO/Agriculture Department. The density of the tree should be around 2500 plants per ha.

(xii) Of the excavated area, major part shall be backfilled and reclaimed with plantation and the balance 60 ha of the decolaed void shall be converted into a water reservoir, the higher benches of which shall be gently sloped and stabilized by plantation/afforestation by planting native plant species in consultation with the total DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.

(xiii) The company shall obtain approval of CGWA/CGWB Regional Office for use of ground water if any for mining operations. Sanction of competent authority shall be obtained for use of water from the integrated water Supply Scheme of the G.B. Pant Sagar.

(xiv) Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring for quantity should be done four times a year in pre-monsoon (May), monsoon (August), post monsoon (November) and winter (January) seasons and for quality in May. Data thus collected should be submitted to the ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.

(xv)The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource. The project authorities should meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.

(xvi)Sewage treatment plant should be installed in the existing colony. ETP should also be provided for Workshop and CHP wastewater to ensure that the total wastewater of 3190 cum/d being discharged from the mine conforms to prescribed standards for discharges.

(xvii)The project authorities shall carry out a study for zero from NCL mines by considering various options for using excess treated effluents including artificial recharge and the report on the same shall be submitted to this Ministry within six months of issue of this clearance letter.

(xvii) Besides carrying out regular periodic health check up of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health check up for occupational diseases and hearing impairment, if any, through an agency such as NIOH, Ahmedabad within a period of two years and the results reported to this Ministry and to DGMS.

(xviii)For monitoring land use pattern and for post land use, a time series of land use maps, based on satellite imagery (on a scale of 1:5000) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in a three years (for any one particular season which is consistent in the time series), and the report submitted to MOEF and its Regional Office at Bhopal.

(xix)R & R for the remaining 390 PAPs shall be completed by 2010-11. The R & R will be based on norms not less than stipulated under the National R&R Policy/State Govt. whichever is higher.

(xiv)A final mine Closure Plan along with details of Corpus fund should be submitted to the Ministry of Environment & Forests within one year for approval.

(xx)Consent Operate shall be obtained before expanding mining operations.

B) GENERAL CONDITIONS

(i) No change in mining technology and scope of working should be made without prior approval of the ministry of Environment and 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 SPM, RPM, SO₂ and NO_x 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) Fugitive dust emissions (SPM and RPM) from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading and unloading) points should be provided and properly maintained.

(v) Data on ambient air quality (SPM, RPM, SO₂ and NO_x) should be regularly submitted to the Ministry including its Regional Office at Bhopal and to the State Pollution Control Board and Central Pollution Control Board once in six months.

(vi) Adequate measures should be taken for control of noise levels below 85 DBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc. should be provided with ear plugs/muffs.

(vii) 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 before discharge. Oil and grease trap should be installed before discharge of workshop effluents.

(viii) Vehicular emissions should be kept under control and regularly monitored. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.

(ix) Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.

(x) Personnel working in dusty area should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers should be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed.

(xi) 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 Head of the company.

(xii) 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 this Ministry and its Regional Office at Bhopal.

(xiii) The Regional Office of this Ministry located at Bhopal shall monitor compliance of stipulated conditionals. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

(xiv) A copy of the environmental clearance letter shall be marked to concerned Panchayat/ Local NGO. If any from whom any suggestion/ representation has been received while processing the proposal.

(xv) State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Center and Collector's Office /tehsildar's Office for 30 days.

(xvi) The Project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in vernacular language of the locality concerned within seven days of the clearance letter 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 the website of the Ministry of Environment & Forest at <http://envfor.nic.in>

3. The ministry or any other competent authority may stipulate any further condition for environmental protection.

4. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the Environmental (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.

(Dr. T. Chandini)
Director

Copy to :

- 1) Secretary, Ministry of coal, Government of India, Shastri Bhawan, New Delhi
- 2) Secretary, Environment Department, Government of Uttar Pradesh, Secretariat, Bhopal.
- 3) Secretary, Environment Department, Government of Madhya Pradesh, Secretariat, Bhopal.
- 4) Chief Conservator of Forest (Western), Ministry of Environment & Forest, Regional Office, E-2/240 Arera Colony, Bhopal –462016.
- 5) Chief Conservator of Forest (Central), Ministry of Environment & Forest, Regional Office, B-1/272, Sector K, Aliganj, Bhopal –226020
- 6) Chairman, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi –110032
- 7) Member Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
- 8) Shri M.K. Shukla, CGM, Coal India Limited, Scope Minar, Core-I, 4th Floor, Vikash Marg, Laxminagar, New Delhi.
- 9) District Collector Sidhi, Government of Madhya Pradesh.
- 10) EI Division, Ministry of Environment & Forests, New Delhi.
- 11) Monitoring file. 12) Guard File. 13) Record file.