

No. J-11015/318/2009-IA.II (M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
CGO Complex, Lodhi Road
New Delhi-110003.

To

Dated: 7th May, 2013

The General Manager (Env.)
M/s Central Coalfields Ltd.,
Darbhanga House,
Ranchi - 834008
Jharkhand

Sub. : Tetariakhar OCP (expansion from 0.5 MTPA to 2 MTPA (Normative) and 2.5 MTPA (Peak) and expansion in ML Area from 131 ha to 155.58 ha (208.47ha-(0.85 ha+52.04 ha) = 155.58 ha) of M/s Central Coalfields Ltd., North Karanpura Coalfields, Dist. Latehar, Jharkhand –Environment Clearance-reg.

Sir,

This is with reference to letter no. 43011/89/2007-CPAM dated 27.06.2007 of Ministry of Coal forwarding the application for environmental clearance and letter of M/s CCL dated 6.5.2008, 1.4.2009 and 12.8.2009 and which was returned vide this Ministry's letter of even number dated 05.10.2009 vide Circular no. J-11013/41/2006-IA.II(I) dated 04.09.2009 of the Ministry. Subsequently, the application vide letter no CIL/DLI/CGM/MCCL/2009/11 Dated 09.11.2009 along with the application for Terms of Reference (TOR) and this Ministry's letter of even number dated 10.12.2009 granting TOR may be referred to. Further reference may please be made to the letter No.CIL/DLI/EMP-TOR/2012/13 dated 25.6.2012 of M/s Coal India Ltd. forwarding the application for environmental clearance for the above mentioned project and subsequent letters dated 18.07.2012 and 21.08.2012 for environmental clearance for the above mentioned project.

2. The Ministry of Environment & Forests has considered the application. It is noted that the proposal is for expansion of existing Tetariakhar Open Cast coal mine project from 0.5 MTPA to 2 MTPA (normative) and 2.5 MTPA (peak) and expansion in ML area from 131 ha to 208.47 ha. EC for the 0.5 MTPA project was granted on 15.09.2005. The proponent informed that:

- (i) The mine is located in North Karanpura Coalfields. The present project is being operated on diesel as there is no electricity in the region.
- (ii) The coal block is drained by two nalas Butha nala in the easternly and Mukhar nala flowing in the west at the distance of 60-70 from lease boundary and join at a distance of 500m to river Ramghat. No embankment is proposed. A distance of 100m would be maintained between the toe of the external OB and Bhutha Nala and a retaining wall of 1m width and 1.5 m height has been proposed to be constructed in between the toe and bank of Bhutha nala to prevent silting of nala during monsoon. Of the total ML area of 208.47 ha, 0.85 ha is forestland (which is not to be acquired), 141.74 ha is tenancy land, 65.88 ha is Govt. land.
- (iii) The mining would be opencast using surface miner and shovel-dumper. Of the total ML area of 298.47 ha, 108.57 ha is quarry area, 54.34 ha is ext. OB dump, 11.71 ha is

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infrastructure, 5.6 ha is nala diversion, 12 ha is haul roads, 15.35 ha is green belt, 2.61 ha is safety zone.

- (iv) A township is proposed. Expansion project includes Coal Handling Plant (CHP) which has been designed to handle 2.0 MT of coal per annum.
- (vi) The water requirement would 1090 m³/d, of which 190 is for drinking and 900 m³/d is for the mine operations, total requirement would be met from mine water discharge @ 1805 m³/day. Water table during pre-monsoon is in the range of 2.85-6.73m bgl and in the range of 0.30-6m during post-monsoon.
- (vii) The total estimated OB generation is 16.84 Mm³. Of the total OB of 16.84 Mm³, 13 Mm³ of OB would be dumped externally in one OB dump in an area in 54.34 ha of a max. height of 60m and the balance 3.84 Mm³ OB would be backfilled. An estimated 2.7 Mm³ OB from external OB dump will be re handled in post mining stage leaving mine void of 108.57 ha area with 45 m depth would be left at the post-mining stage.
- (viii) At present the Coal is being transported by 45 tipping trucks to Tori Railway siding located at the distance of about 29 km. The coal dispatch would be from proposed Tetariakhar railway siding by road involving 242 trips/day.
- (ix) The R&R involves 5 PAFs who would be rehabilitated with in year.
- (x) The average grade of coal is 'F'. Ultimate working depth is 150m. An amount of Rs 5/T of coal earmarked for activities under CSR. Balance life of the mine is 11 years. Conservation Plan of Wolves, Vulture & Stripped Hyenas through fresh survey in August 2012 prepared at the cost of Rs 95 Lakh, Rs25 Lakhs, Rs 105 Lakh.
- (xi) The Schedule- II fauna like Jackal, Jungle cat, Ruddy Mongoose, Rhesus, Monkey, Common Palm Civet, Black faced Languor are reported in area. There is no schedule-I species either recorded or reported in the study area. Capital cost of EMP is Rs 43.8846 Crores (including Mine closure cost amounting Rs 14.67 Crores). and recurring cost @ 19.06/T of coal. Expansion project was approved on 21.01.2009. The Capital Cost of the project is Rs142.11 Crores.
- (xii) The Public Hearing was held on 17.04.2012.
- (xiii) There are no ecologically sensitive area found within the 15 km of area.
- (xiv) The Proponent, vide its letter no CCL/GM(E&F)/2012/2605 dated 26.12.2012 and 31.12.2012 has informed that 0.85 ha is forest land in Tetariakhar OCP falling under safety zone and hence will not acquire and diverted under section 2 of FC Act, 1980, as per para 4.7 of the Act and FC Rules, 2003 (amended in 2004).

3. The proposal was considered in the Expert Appraisal Committee (EAC) (Thermal & Coal Mining) and recommended in its 59th meeting held on 6-7 November, 2012 for granting Environmental Clearance.

4. Reference is invited to the letter no. CCL/GM(E&F)/2012/2605 dated 26.12.2012 and 31.12.2012 informing that 0.85 ha of forest land in Tetariakhar OCP falling under safety zone and hence will not be acquired and diverted under section 2 of FC Act, 1980 as per para 4.7. of the Act and FC Rules, 2003 (amended in 2004). In this regard, you are required to follow the guidelines issued by the FC Division of the Ministry of Environment & Forests, vide no. file no. 8-25/2010-FC dated 12.07.2012, which after review of the said guideline decided that the para 4.7 (i) of the said guideline should read as below:

“Approval under the Act for diversion of entire forest land located within the mining lease, including the forest land located in safety zone, should be obtained before execution of mining lease in favour of the user agency. However, forest area required for safety zone should be indicated separately in the proposal. Such area will have to be fenced at the cost of the project authority. Further, project authority will have to

deposit funds with the Forest Department for the protection and regeneration of such safety zone area and also with have to bear the cost of afforestation over one and a half times of the safety zone area in degraded forest elsewhere”.

Further, you are also required to follow the guidelines issued by the FC Division of the Ministry of Environment & Forests, vide no. 11-362/2012-FC dated 01-02-2013, “Guidelines for diversion of forest land for non-forest purposes under the Forest (Conservation) Act, 1980. Submission of proposals to obtain forest land located within the mining lease and grant of environment clearance to mining projects” addressed to the Principal Secretary (Forests), Principal Secretary (Environment) of all the States/UT Govts. and copy to concerned Government Departments/Organisations which prescribes, inter-alia, the following:

“ (iii) As regards Environment Clearance (EC) cases of existing mining operations, where approval under the FC Act for the full forest area in the mining lease area is not available, granting of EC may be considered and the following process will be adopted for processing such cases:

- a) Grant of EC may be considered only for the non-forest area plus the forest area within the mining lease for which FC is available. No mining activities will be allowed in forest area for which the FC is not available; and
- b) The project proponent will seek and obtain approval under the FC Act for diversion of the entire forest land located within the mining lease within a period of two years from the date of issue of these guidelines, failing which the mining lease area will be reduced to the non-forest area plus the forest area for which the project proponent has been able to obtain the FC at the end of this time period. In the case of reduction in mine lease area, the project proponent will need to get a revised mining plan approved from the competent authority for reduced area and enter into a new mining lease as per reduced lease area. The EC will be construed to be available for the mining lease area as per the revised mining lease deed.”

5. The Hon’ble Supreme Court of India in their order dated 06.07.2011 in the IA No. 1868 of 2007 in the matter of Lafarge Umiam Mining Private Limited and others in the Writ Petition (Civil) No. 202 of 1995 in the matter of T.N. Godavarman Thirumulpad versus Union of India and others inter-alia directed that if the project proponent makes a claim regarding the status of the land being non-forest, if there is any doubt, the site shall be inspected by the State Forest Department along with the Regional Office of the MoEF to ascertain the status of forests, based on which the certificate in this regard be issued. In view of this, no mining operations shall be undertaken in the 52.04 ha of land which has been demarcated as “scrub land & plantation is not forest land but for plantation area as per the present land use pattern through satellite imagery” until clearance has been obtained as mentioned as per the process explained in this paragraph.

6. The Ministry of Environment & Forests hereby accords environmental clearance for the above-mentioned **Tetariakhar Opencast Coal Project (expansion from 0.5MTPA to capacity 2.0 MTPA normative and & Peak 2.5 MTPA in a total lease area of 155.58 ha (208.47ha-(0.85 ha+52.04 ha) = 155.58 ha) of M/s Central Coalfields Limited** under the provisions of the Environmental Impact Assessment Notification, 2006 and amendments thereto and circulars issued thereon and subject to the compliance of the terms and conditions mentioned below. You will need to seek and obtain approval under the FC Act for diversion of the entire forest land located within the mining lease within a period of two years from the date of issue of these guidelines (i.e. 01 February, 2013), failing which the mining lease area will be

reduced to the non-forest area plus the forest area for which you have been able to obtain the FC at the end of this time period. In the case of reduction in mine lease area, you will need to get a revised mining plan approved from the competent authority for reduced area and enter into a new mining lease as per reduced lease area. The EC will be construed to be available for the mining lease area as per the revised mining lease deed. Further, no mining operations shall be undertaken in the 52.04 ha of land which has been demarcated as “scrub land & plantation is not forest land but for plantation area as per the present land use pattern through satellite imagery” until clearance has been obtained as per the process mentioned in paragraph 5 above.

A. Specific Conditions:

- i. FC is to be obtained for the 0.85 ha forestland earmarked for safety zone as per para 4 above.
- ii. No mining operations shall be undertaken in 52.04 ha of forest land which does not have FC, as per para 5 above.
- iii. Peak production from the mine shall not exceed 2.5 MTPA without prior Environmental Clearance.
- iv. Mining shall be carried out as per statuette from the streams/nalas flowing within the lease and maintaining a safe distance from the nalas flowing along the lease boundary.
- v. A distance of 100 m between the toe of the external OB and Bhutia nala shall be maintained and retaining wall of 1m width and 1.5m height shall be constructed between the toe of the dump and bank of Bhutia nala to prevent silting of nala during monsoon. The nala should not be choked due to untreated mining water discharge.
- vi. No washery shall be established within the ML area without prior Environment Clearance from the ministry.
- vii. Top soil shall be stored in the earmarked site(s) and shall not be kept active and shall be used within year of its generation for reclamation and development of green belt.
- viii. Of the total OB 16.84 Mm³ will be generated.,13 Mm³ of OB being dump externally shall be dumped at earmarked area of 54.34 ha area of max. height of 60 mt height. Of the total 2.7Mm³ OB shall be rehandled from the external OB dump at the post mining stage. The ultimate slope of the dumps shall not exceed 28°. Monitoring and management of reclaimed dumpsites shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional office located at Bhubaneswar on yearly basis.
- ix. Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected shall be utilised for watering the mine area, roads, green belt development, etc. The drains shall be regularly desilted and maintained properly.
- x. Garland drains (size, gradient and length) and sump capacity shall 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 shall also provide adequate retention period to allow proper settling of silt material.
- xi. Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.
- xii. Mineral transportation by road to from mine to CHP and to 45 tipping trucks to Railway siding located at the distance of about 29km from the mine shall use truck of minimum capacity of 20T. All internal road and approach road, and roads for colony shall be black topped. A 3-tier green belt comprising of a mix of native species shall be developed on both side of roads. Green belt shall also be developed at the railway siding. Tetariakhar railway siding proposed at the distance of 4km from the mine shall be constructed and

- commissioned within 4 years. Plantation should be provided near the dust generation points.
- xiii. High efficiency water sprinkling system shall be provided to check fugitive emission at transfer point, haulage road, etc. Shall be provided at crushing /loading operations for dust control at the CHP.
 - xiv. Drills shall be wet operated.
 - xv. Controlled blasting shall 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 shall be implemented.
 - xvi. A Progressive afforestation plan shall be implemented. Of the total 208.47 ha, an area not less than 111.01 ha, which includes 21.71ha backfilled quarry area, 54.34 ha external OB dump, 11.71 ha long infrastructure, 7 ha along road, 15.35 ha of green belt, and 2.61 ha in safety zone shall be developed with plantation by planting native species from about the mix species found in original eco-system during pre-phase in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha.
 - xvii. A Final Mine Closure Plan shall be implemented by reclamation of quarry area of 108.57 ha which shall be backfilled using 3.84 Mm³ of OB and by rehandling of 2.7Mm³ of OB to a maximum depth of 40-45 m, the upper area shall be gently sloped and stabilized with plantation from species found in the original ecosystem. No dumping of fly ash shall be permitted.
 - xviii. The Wildlife Conservation Plan of Wolves, Vulture & Stripped Hyenas prepared at the cost of Rs 95 Lakh, Rs 25 Lakhs, Rs 105 Lakh. All the conditions/Suggestions of Wild Life Conservation Plan should be implemented in Schedule –I & Schedule –II species found in the study area.
 - xix. The sand stone present in the OB should be provided to local people free of cost for further use.
 - xx. No groundwater shall be used for mining operations except for drinking (mine and colony). Rain water harvesting structure including check dam for recharge of ground water shall be done four time a year in pre-monsoon
 - xxi. Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring for quantity shall 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 shall be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.
 - xxii. The project authorities shall meet water requirement of nearby villages in case of water wells go dry due to dewatering of mines.
 - xxiii. Sewage treatment plant shall be installed in the existing colony. ETP shall also be provided for workshop and CHP wastewater. Treated waste water meeting prescribed norms only shall be discharged into the natural water course.
 - xxiv. 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 third party health check up for occupational diseases and hearing impairment, if any, through an specialised agency /institution within the District/State .
 - xxv. A pre-mining socio-economic survey shall be undertaken and impact of CSR shall be assessed every third year on the basis of socio-economic and quality of parameter such as the UNDP. Human Development Index and furnished as part of the Monitoring Report .R& R shall be compensated as per the norms not below that laid out under the National/ State Government R&R Policy. Revenue expenditure of Rs 5/T of coal shall be earmarked for CSR. The details of expenditure and various activities shall be uploaded on

the company website and updated at least once a year. The CSR budget should be Rs. 70 Lakhs for 2012-13 and the same should be continued till the end of the mine with proper escalation factor every year. The project authorities shall in consultation with the Panchayats of the local villages and administration identify socio-economic and welfare measures under CSR to be carried out over the balance life of the mine.

- xxvi. For monitoring land use pattern and for post mining 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 3 years (for any one particular season which is consistent in the time series), and the report submitted to MOEF and its Regional office at Bhubaneswar.
- xxvii. A detailed Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests within 6 months of grant of Environmental Clearance.
- xxviii. Corporate Environment Responsibility:
 - a) The Company shall have a well laid down Environment Policy approved by the Board of Directors.
 - b) The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
 - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished.
 - d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

B. General Conditions

- (i) No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.
- (ii) No change in the calendar plan of production for quantum of mineral coal shall be made.
- (iii) Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for PM₁₀, PM_{2.5}, SO₂ and NO_x monitoring. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc carried out at least once in six months.
- (iv) Data on ambient air quality (PM₁₀, PM_{2.5}, SO₂ and NO_x) and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly submitted to the Ministry including its Regional Office at Bhubaneswar and to the State Pollution Control Board and the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognised under the EPA rules, 1986 shall be furnished as part of compliance report.
- (v) Adequate measures shall 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 shall be provided with ear plugs/muffs.
- (vi) Industrial wastewater (workshop and wastewater from the mine) shall 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 shall be installed before discharge of workshop effluents.
- (vii) Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.
 - (viii) Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data got analysed through a laboratory recognised under EPA Rules, 1986.
 - (ix) Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed and records maintained thereof.
 - (x) A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.
 - (xi) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office at Bhubaneswar.
 - (xii) The Project authorities shall 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 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 & Forests at <http://envfor.nic.in>.
 - (xiii) A copy of the environmental clearance letter shall be marked to concern Panchayat/Zila Parishad, Municipal corporation or Urban local body and local NGO, if any, from whom any suggestion /representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on company's website.
 - (xiv) A copy of the environmental clearance letter shall be shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Sector and Collector's Office/Tehsildar's Office for 30 days.
 - (xv) The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated environmental clearance conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in public domain. The monitoring data of environmental quality parameter (air, water, noise and soil) and critical pollutant such as PM₁₀, PM_{2.5}, SO₂ and NO_x (ambient) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mine office and in corporate office and on company's website.
 - (xvi) The project proponent shall submit six monthly compliance reports on status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the Ministry, respective Zonal Office s of CPCB and the SPCB.
 - (xvii) The Regional Office of this Ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/ information/monitoring reports.
 - (xviii) The Environmental statement for each financial year ending 31 March in For –V is mandated to be submitted by the project proponent for the concerned State Pollution

Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEF by E-mail.

7. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

8. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the Environment (Protection) Act, 1986.

9. 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. The proponent shall ensure to undertake and provide for the costs incurred for taking up remedial measures in case of soil contamination, contamination of ground water and surface water, and occupational and other diseases due to the mining operations.

(Dr. Manoranjan Hota)
Director

Copy to:

1. DG (F), MOEF, New Delhi w.r.t Specific Condition No. (i).
2. Secretary, Ministry of Coal, Shastri Bhawan, New Delhi.
3. Secretary, Department of Environment & Forests, Government of Jharkhand, Secretariat, Ranchi.
4. Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, A/3 Chandrashekar pur, Bhubaneswar – 751023.
5. Chairman, Jharkhand State Pollution Control Board, TA Building, HEC Complex, PO Dhurwa, Ranchi.
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. District Collector, Latehar, Government of Jharkhand.
9. Monitoring File 9. Guard File 10. Record File

(Dr. Manoranjan Hota)
Director

No. J-11015/318/2009-IA.II (M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
CGO Complex, Lodhi Road
New Delhi-110003.

To

Dated: 7th May, 2013

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- (xiv) The Proponent, vide its letter no CCL/GM(E&F)/2012/2605 dated 26.12.2012 and 31.12.2012 has informed that 0.85 ha is forest land in Tetariakhar OCP falling under safety zone and hence will not acquire and diverted under section 2 of FC Act, 1980, as per para 4.7 of the Act and FC Rules, 2003 (amended in 2004).

3. The proposal was considered in the Expert Appraisal Committee (EAC) (Thermal & Coal Mining) and recommended in its 59th meeting held on 6-7 November, 2012 for granting Environmental Clearance.

4. Reference is invited to the letter no. CCL/GM(E&F)/2012/2605 dated 26.12.2012 and 31.12.2012 informing that 0.85 ha of forest land in Tetariakhar OCP falling under safety zone and hence will not be acquired and diverted under section 2 of FC Act, 1980 as per para 4.7. of the Act and FC Rules, 2003 (amended in 2004). In this regard, you are required to follow the guidelines issued by the FC Division of the Ministry of Environment & Forests, vide no. file no. 8-25/2010-FC dated 12.07.2012, which after review of the said guideline decided that the para 4.7 (i) of the said guideline should read as below:

“Approval under the Act for diversion of entire forest land located within the mining lease, including the forest land located in safety zone, should be obtained before execution of mining lease in favour of the user agency. However, forest area required for safety zone should be indicated separately in the proposal. Such area will have to be fenced at the cost of the project authority. Further, project authority will have to

deposit funds with the Forest Department for the protection and regeneration of such safety zone area and also with have to bear the cost of afforestation over one and a half times of the safety zone area in degraded forest elsewhere”.

Further, you are also required to follow the guidelines issued by the FC Division of the Ministry of Environment & Forests, vide no. 11-362/2012-FC dated 01-02-2013, “Guidelines for diversion of forest land for non-forest purposes under the Forest (Conservation) Act, 1980. Submission of proposals to obtain forest land located within the mining lease and grant of environment clearance to mining projects” addressed to the Principal Secretary (Forests), Principal Secretary (Environment) of all the States/UT Govts. and copy to concerned Government Departments/Organisations which prescribes, inter-alia, the following:

“ (iii) As regards Environment Clearance (EC) cases of existing mining operations, where approval under the FC Act for the full forest area in the mining lease area is not available, granting of EC may be considered and the following process will be adopted for processing such cases:

- a) Grant of EC may be considered only for the non-forest area plus the forest area within the mining lease for which FC is available. No mining activities will be allowed in forest area for which the FC is not available; and
- b) The project proponent will seek and obtain approval under the FC Act for diversion of the entire forest land located within the mining lease within a period of two years from the date of issue of these guidelines, failing which the mining lease area will be reduced to the non-forest area plus the forest area for which the project proponent has been able to obtain the FC at the end of this time period. In the case of reduction in mine lease area, the project proponent will need to get a revised mining plan approved from the competent authority for reduced area and enter into a new mining lease as per reduced lease area. The EC will be construed to be available for the mining lease area as per the revised mining lease deed.”

5. The Hon’ble Supreme Court of India in their order dated 06.07.2011 in the IA No. 1868 of 2007 in the matter of Lafarge Umiam Mining Private Limited and others in the Writ Petition (Civil) No. 202 of 1995 in the matter of T.N. Godavarman Thirumulpad versus Union of India and others inter-alia directed that if the project proponent makes a claim regarding the status of the land being non-forest, if there is any doubt, the site shall be inspected by the State Forest Department along with the Regional Office of the MoEF to ascertain the status of forests, based on which the certificate in this regard be issued. In view of this, no mining operations shall be undertaken in the 52.04 ha of land which has been demarcated as “scrub land & plantation is not forest land but for plantation area as per the present land use pattern through satellite imagery” until clearance has been obtained as mentioned as per the process explained in this paragraph.

6. The Ministry of Environment & Forests hereby accords environmental clearance for the above-mentioned **Tetariakhar Opencast Coal Project (expansion from 0.5MTPA to capacity 2.0 MTPA normative and & Peak 2.5 MTPA in a total lease area of 155.58 ha (208.47ha-(0.85 ha+52.04 ha) = 155.58 ha) of M/s Central Coalfields Limited** under the provisions of the Environmental Impact Assessment Notification, 2006 and amendments thereto and circulars issued thereon and subject to the compliance of the terms and conditions mentioned below. You will need to seek and obtain approval under the FC Act for diversion of the entire forest land located within the mining lease within a period of two years from the date of issue of these guidelines (i.e. 01 February, 2013), failing which the mining lease area will be

reduced to the non-forest area plus the forest area for which you have been able to obtain the FC at the end of this time period. In the case of reduction in mine lease area, you will need to get a revised mining plan approved from the competent authority for reduced area and enter into a new mining lease as per reduced lease area. The EC will be construed to be available for the mining lease area as per the revised mining lease deed. Further, no mining operations shall be undertaken in the 52.04 ha of land which has been demarcated as “scrub land & plantation is not forest land but for plantation area as per the present land use pattern through satellite imagery” until clearance has been obtained as per the process mentioned in paragraph 5 above.

A. Specific Conditions:

- i. FC is to be obtained for the 0.85 ha forestland earmarked for safety zone as per para 4 above.
- ii. No mining operations shall be undertaken in 52.04 ha of forest land which does not have FC, as per para 5 above.
- iii. Peak production from the mine shall not exceed 2.5 MTPA without prior Environmental Clearance.
- iv. Mining shall be carried out as per statuette from the streams/nalas flowing within the lease and maintaining a safe distance from the nalas flowing along the lease boundary.
- v. A distance of 100 m between the toe of the external OB and Bhutia nala shall be maintained and retaining wall of 1m width and 1.5m height shall be constructed between the toe of the dump and bank of Bhutia nala to prevent silting of nala during monsoon. The nala should not be choked due to untreated mining water discharge.
- vi. No washery shall be established within the ML area without prior Environment Clearance from the ministry.
- vii. Top soil shall be stored in the earmarked site(s) and shall not be kept active and shall be used within year of its generation for reclamation and development of green belt.
- viii. Of the total OB 16.84 Mm³ will be generated.,13 Mm³ of OB being dump externally shall be dumped at earmarked area of 54.34 ha area of max. height of 60 mt height. Of the total 2.7Mm³ OB shall be rehandled from the external OB dump at the post mining stage. The ultimate slope of the dumps shall not exceed 28°. Monitoring and management of reclaimed dumpsites shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional office located at Bhubaneswar on yearly basis.
- ix. Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected shall be utilised for watering the mine area, roads, green belt development, etc. The drains shall be regularly desilted and maintained properly.
- x. Garland drains (size, gradient and length) and sump capacity shall 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 shall also provide adequate retention period to allow proper settling of silt material.
- xi. Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.
- xii. Mineral transportation by road to from mine to CHP and to 45 tipping trucks to Railway siding located at the distance of about 29km from the mine shall use truck of minimum capacity of 20T. All internal road and approach road, and roads for colony shall be black topped. A 3-tier green belt comprising of a mix of native species shall be developed on both side of roads. Green belt shall also be developed at the railway siding. Tetariakhar railway siding proposed at the distance of 4km from the mine shall be constructed and

- commissioned within 4 years. Plantation should be provided near the dust generation points.
- xiii. High efficiency water sprinkling system shall be provided to check fugitive emission at transfer point, haulage road, etc. Shall be provided at crushing /loading operations for dust control at the CHP.
 - xiv. Drills shall be wet operated.
 - xv. Controlled blasting shall 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 shall be implemented.
 - xvi. A Progressive afforestation plan shall be implemented. Of the total 208.47 ha, an area not less than 111.01 ha, which includes 21.71ha backfilled quarry area, 54.34 ha external OB dump, 11.71 ha long infrastructure, 7 ha along road, 15.35 ha of green belt, and 2.61 ha in safety zone shall be developed with plantation by planting native species from about the mix species found in original eco-system during pre-phase in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha.
 - xvii. A Final Mine Closure Plan shall be implemented by reclamation of quarry area of 108.57 ha which shall be backfilled using 3.84 Mm³ of OB and by rehandling of 2.7Mm³ of OB to a maximum depth of 40-45 m, the upper area shall be gently sloped and stabilized with plantation from species found in the original ecosystem. No dumping of fly ash shall be permitted.
 - xviii. The Wildlife Conservation Plan of Wolves, Vulture & Stripped Hyenas prepared at the cost of Rs 95 Lakh, Rs 25 Lakhs, Rs 105 Lakh. All the conditions/Suggestions of Wild Life Conservation Plan should be implemented in Schedule –I & Schedule –II species found in the study area.
 - xix. The sand stone present in the OB should be provided to local people free of cost for further use.
 - xx. No groundwater shall be used for mining operations except for drinking (mine and colony). Rain water harvesting structure including check dam for recharge of ground water shall be done four time a year in pre-monsoon
 - xxi. Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring for quantity shall 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 shall be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.
 - xxii. The project authorities shall meet water requirement of nearby villages in case of water wells go dry due to dewatering of mines.
 - xxiii. Sewage treatment plant shall be installed in the existing colony. ETP shall also be provided for workshop and CHP wastewater. Treated waste water meeting prescribed norms only shall be discharged into the natural water course.
 - xxiv. 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 third party health check up for occupational diseases and hearing impairment, if any, through an specialised agency /institution within the District/State .
 - xxv. A pre-mining socio-economic survey shall be undertaken and impact of CSR shall be assessed every third year on the basis of socio-economic and quality of parameter such as the UNDP. Human Development Index and furnished as part of the Monitoring Report .R& R shall be compensated as per the norms not below that laid out under the National/ State Government R&R Policy. Revenue expenditure of Rs 5/T of coal shall be earmarked for CSR. The details of expenditure and various activities shall be uploaded on

the company website and updated at least once a year. The CSR budget should be Rs. 70 Lakhs for 2012-13 and the same should be continued till the end of the mine with proper escalation factor every year. The project authorities shall in consultation with the Panchayats of the local villages and administration identify socio-economic and welfare measures under CSR to be carried out over the balance life of the mine.

- xxvi. For monitoring land use pattern and for post mining 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 3 years (for any one particular season which is consistent in the time series), and the report submitted to MOEF and its Regional office at Bhubaneswar.
- xxvii. A detailed Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests within 6 months of grant of Environmental Clearance.
- xxviii. Corporate Environment Responsibility:
 - a) The Company shall have a well laid down Environment Policy approved by the Board of Directors.
 - b) The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
 - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished.
 - d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

B. General Conditions

- (i) No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.
- (ii) No change in the calendar plan of production for quantum of mineral coal shall be made.
- (iii) Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for PM₁₀, PM_{2.5}, SO₂ and NO_x monitoring. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc carried out at least once in six months.
- (iv) Data on ambient air quality (PM₁₀, PM_{2.5}, SO₂ and NO_x) and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly submitted to the Ministry including its Regional Office at Bhubaneswar and to the State Pollution Control Board and the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognised under the EPA rules, 1986 shall be furnished as part of compliance report.
- (v) Adequate measures shall 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 shall be provided with ear plugs/muffs.
- (vi) Industrial wastewater (workshop and wastewater from the mine) shall 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 shall be installed before discharge of workshop effluents.
- (vii) Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.
 - (viii) Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data got analysed through a laboratory recognised under EPA Rules, 1986.
 - (ix) Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed and records maintained thereof.
 - (x) A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.
 - (xi) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office at Bhubaneswar.
 - (xii) The Project authorities shall 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 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 & Forests at <http://envfor.nic.in>.
 - (xiii) A copy of the environmental clearance letter shall be marked to concern Panchayat/Zila Parishad, Municipal corporation or Urban local body and local NGO, if any, from whom any suggestion /representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on company's website.
 - (xiv) A copy of the environmental clearance letter shall be shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Sector and Collector's Office/Tehsildar's Office for 30 days.
 - (xv) The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated environmental clearance conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in public domain. The monitoring data of environmental quality parameter (air, water, noise and soil) and critical pollutant such as PM₁₀, PM_{2.5}, SO₂ and NO_x (ambient) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mine office and in corporate office and on company's website.
 - (xvi) The project proponent shall submit six monthly compliance reports on status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the Ministry, respective Zonal Office s of CPCB and the SPCB.
 - (xvii) The Regional Office of this Ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/ information/monitoring reports.
 - (xviii) The Environmental statement for each financial year ending 31 March in For –V is mandated to be submitted by the project proponent for the concerned State Pollution

Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEF by E-mail.

7. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

8. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the Environment (Protection) Act, 1986.

9. 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. The proponent shall ensure to undertake and provide for the costs incurred for taking up remedial measures in case of soil contamination, contamination of ground water and surface water, and occupational and other diseases due to the mining operations.

(Dr. Manoranjan Hota)
Director

Copy to:

1. DG (F), MOEF, New Delhi w.r.t Specific Condition No. (i).
2. Secretary, Ministry of Coal, Shastri Bhawan, New Delhi.
3. Secretary, Department of Environment & Forests, Government of Jharkhand, Secretariat, Ranchi.
4. Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, A/3 Chandrashekar pur, Bhubaneswar – 751023.
5. Chairman, Jharkhand State Pollution Control Board, TA Building, HEC Complex, PO Dhurwa, Ranchi.
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. District Collector, Latehar, Government of Jharkhand.
9. Monitoring File 9. Guard File 10. Record File

(Dr. Manoranjan Hota)
Director