

No. J-11015/536 /2008-IA.II (M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
CGO Complex,
New Delhi-110003.
Dated: 25th February, 2013

To
The DGM/HOD (E&F)
M/s Central Coalfield Ltd.,
Darbhangra House
Ranchi- 834001

Sub: Ara Sarubera Group of 3 Mines- Ara OCP, Chainpur OCP and Sarubera UGP, of which Ara OCP and Sarubera UGP of a combined production capacity of 1.44 MTPA (nominal) and a peak capacity of 1.66 MTPA, in a combined ML Area of 1194.85 ha of M/s Central Coalfields Ltd. located in District Ramgarh, Jharkand - Environmental Clearance-reg.

Sir,

This is with reference to the Ministry of Coal letter no.43011/19/2008 CPAM dated 3.12.2008 along with the application for Terms of Reference (TOR) and this Ministry's letter dated 03.09.2009 granting TOR. Attention is invited to the letters no. CIL/DD-LI/EMP-TOR/2011/12 dated 11.01.12 and dated 17.01.2012, 27.12.11, 14.11.12, 24.12.12 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 grant of Environmental Clearance for Ara-Sarubera Group of Mines consists of three mines namely Ara OCP, Chainpur OCP and Sarubera UGP, of which Ara OCP and Sarubera UGP of a combined production capacity of 1.44 MTPA (nominal) and a peak capacity of 1.66 MTPA, in a combined ML Area of 1194.85 ha of M/s Central Coalfields Ltd. located in District Ramgarh, Jharkand. The proponent has informed that:

(i) The proposal is for Lease renewal. These are old mines of pre-nationalization period.

(ii) It is bounded in the east by Sirka colliery in the north by Tata West Bokaro, in the west by Pundi colliery and in south by Kuju Project. Bokaro River, Chowtha river flows in the north and west boundary respectively. This proposal does not involve increase in lease hold area, change in technology or change in product mix in the mines.

(iii) The details of ML area and production capacity of each of the three mines are given below:

<u>Ara Sarubera Group of Mines</u>					
S. No	Name of coal Mines	Production Capacity		Lease Hold Area	Life of mine
		Normative	Peak		
1	Sarubera UGP	0.18	0.21	449.39	20
2	Chainpur/ Sarubera OCP	0.50	0.58	237.25	15
3	Ara OCP	0.76	0.87	508.21	30
Total for Group of Mines		1.44	1.66	1194.85	

(iv) Of the total combined ML area of 1194.85 Ha, for Ara- Sarubera Group of Mines, 523.55 ha is forestland, 324.5 ha is agricultural land and 346.80 ha is wasteland. land use of total 1194.85 Ha area, 58.20 ha is area of existing quarry, 91.59 ha is for OB dump area, 2.38 ha is for Mineral storage, 11.46 ha is for infrastructure, 19.17 ha is for road, 449.43 ha is for green belt/Safety zone, 15.02 ha is for tailing pond, 30.98 ha is for Nallah area, 503.14 ha is for agricultural & vacant land and 13.48 ha is for village. For underground Sarubera mine, the 165.26 ha land is under surface right and 284.13 ha under mining right. There are no endangered fauna reported in the study area.

(v) The drainage system in the area is controlled by Bokaro River. The project area is mainly drained Nakti Nallah & Bhagranpur nallah flow towards north through mine lease area and discharge into Bokaro River. Damodar River is the master drainage of the area. Water level in the cluster is in the range of 6.60-7.15 m bgl (pre-monsoon) and 5.49-5.01 m bgl (post-monsoon) in core area. The peak water requirement of group of mines would be 3363 m³/day (1563 m³/day for mining operations and 1800 m³/day for domestic). Mine water discharge 3363 m³/day.

(vi) The opencast mining by Shovel & Dumper method in Ara OC and Chainpur OC and in Sarubera underground mining by Bord & Pillar with SDLs.

(vii) In Sarubera underground, the maximum predicted subsidence would be 5.08m and maximum tensile strain 96.72 mm/m and maximum slope change would be 184.24 mm/m. The internal dump will be in Quarry-1 & 2 in Ara OCP, the OB dump will be in an area of 73.0 Ha with 18-20m height, after rehandling of 7.25 Mm³ OB. The Quarry -3 in void of Ara OCP will be reduced with 13.53 ha area and 60 m depth after filling of 7.25 Mm³ OB. Dump of Patch-I of Chainpur OCP (barrier overlap) will be in 72.52 Ha area and 18-20 m height after OB rehandling of 4.7 Mm³. The void of Patch-I of Chainpur OCP will be 19.13 ha area & 45m depth after rehandling of 4.7 Mm³ of OB. Similarly, the void of Patch-II of Chainpur OCP 6.32 ha area & 0m depth and Patch-III of Chainpur OCP 20.57 ha area & 35m depth and proposed for filling by OB from other OC mines of CCL. The depth of the final mine void would be 30m in an area of 79.67 ha at the end of mining. of the total 5530 TPD of coal, 1380 TPD coal upto Rajrappa washery at the distance of 4 km outside ML area. 4150 TPD Coal would be transported by rail from Chainpur Railway siding.

(viii) In the Sarubera underground project and Chainpur open cast project, the no PAFs would be shifted but the land would be acquired from Sarubera and Ara basti. In Ara OCP, out of the total 534 PAFs, 266 nos will be from Dumerbera, 98 from Baghlata Basti, and 160 from Ara Basti would be shifted and land will be acquired from these villages. The affected families will be rehabilitated as per the R&R Policy of CIL (Revised in April 2012) at the cost of Rs 18.66 Crores. Rehabilitation Site has been selected at Mourpa in an area 64.25 ha.

(ix) The Ara OCP and Sarubera/Chainpur project have been approved by M/s CCL on 23.1.1990 and 06.08.1990. The environmental pollution control cost would be met from the revenue head of the mine as the capital items have been completed.

(x) The total Capital cost of group of Ara Saurubera is Rs.37.16 Crores. (19.89 Ara+17.27 Sarubera/Chainpur).. The mine closure plan envisages of a fund provisioning of Rs. 6 lakhs/ha on lease hold area for OC mines with proper escalation factor.

Technical Parameters of The Group of The Ara –Sarubera Mines			
Parameter	Sarubera UGP	Chainpur/ Sarubera OCP	Ara OCP
Year of inception	Pre- 1973	1987	Pre-1973
Manpower	656	333	419
Ventilation	NA	NA	NA
Maximum Depth (m)	100	105	156
Stripping ratio	NA	Patch –I-2.6 Patch –II-3.0 Patch –III-2.71	Patch –I-2.10 Patch –II-1.94 Patch –III-2.46
Seam Gradient	1 in 8	1 in 5 to 1 in 1.5	1 in 4
Mineable reserve (MT)	5.70	6.85	19.64
Method of mining	Bord & Pillar with SDLs	Shovel & Dumper	Shovel & Dumper
Grade of coal	W-IV	Grade-E & W-IV	W-III & W-IV
Seam to be worked	II & I.	VII, VI, VA, V, IV, III.	XII, XI, XA, X, VIIIA, VIII, VII, VI, VA, V, IV & III.
Transportation of coal by road & rail. Linkage	Rajrappa Washery, Kuju Railway Siding and Customer Sale Centre, Karibanda.	Rajrappa Washery, Kuju Railway Siding and Customer Sale Centre, Karibanda.	Rajrappa Washery, Kuju Railway Siding and Customer Sale Centre, Karibanda.
Production in MT (1993-94)	0.11	0.15	0.12
Production in 2011-12 (MT)	0.09	0.00	0.04
Proposed peak Production (MT)	0.21	0.58	0.87
Cost of Production (Rs./Te)	Rs. 1000.00	Gr- E = Rs. 850.00 W-IV = Rs. 1000.00	W-IV = Rs. 1000.00 W-III = Rs. 1100.00

Rehabilitation & Resettlement Detail:

Sl. No.	Name of the Village	No. of families to be shifted	No. of Buildings		Year of Shifting
			Pucca	Kutcha	
1	Dumerbera	266	114	152	2015-16
2	Baghlata Basti	98	42	56	2017-18
3	Ara Basti	160	68	92	2017-18
	Total	524	224	300	-

Detail of Employment to Land Losers

No	Name of Project	Name Of Village	Employment to Land Losers		
			Already given	To be given	Total
1	Ara OCP	Ara	104	268	372
		Murpa	11	61	72
2	Sarubera Colliery	Ara	0	17	17
		Sarubera	12	13	25
Total			127	359	486

(xi) Public Hearing was held on 08.06.2010.

(xii) The Stage-II forestry clearance for 166.90 Ha land has been obtained on vide letter no. 8-65/2003-FC dated 13.08.2008 in Chainpur/Sarubera OCP and Stage-II forestry clearance for 196.55 ha land has been obtained on vide letter no 8-75/2003-FC dated 13.08.2008. 160.1 ha forest land FC yet to be obtained. A total 363.45 Ha forest land has been acquired.

(xiii) The proponent, vide its letter of no. DGM/HOD(E&F)/2013 of 02 January, 2013, has also informed that the balance forest land of 160.10 ha [i.e. Total 523.5. ha- (166.90 ha+196.55 ha)= 160.10 ha] will not be required for mining activity by the project proponent for mining activity and hence will not be diverted. As informed by the proponent, forestry clearance for this additional 160.10 ha of forest land is not required.

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. DGM/HOD (E&F)/2013 of 02 January, 2013, stating that the balance forest land of 160.10 ha [i.e. Total 523.5. ha- (166.90 ha+196.55 ha) = 160.10 ha] will not be required for mining activity and hence will not be diverted. In this regard, you are 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:

- 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
- 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 Ministry of Environment & Forests has examined the application in accordance with the EIA Notification 2006 and under the provisions thereof, hereby accords environmental clearance for the above-mentioned Ara Sarubera Group of Mines consisting of three mines namely Ara OCP, Chainpur OCP and Sarubera UGP, of which Ara OCP and Sarubera UGP of M/s Central Coalfields Ltd. of combined production capacity of 1.44 MTPA (nominal) and a peak capacity of 1.66 MTPA, in a combined ML Area of 1034.75 ha (1194.85 ha – 160.10 ha = 1034.75) 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.

A: Specific Conditions:

- (i) No mining operations shall be undertaken in the forestland until clearance has been obtained under the provisions of FC Act, 1980.
- (ii) The maximum production by opencast mining shall not exceed beyond that for which environmental clearance has been granted
- (iii) Topsoil generated in the balance life of Ara OCP and Sarubera/Chainpur OCP should 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.
- (iv) OB generated in the balance life of Ara OCP and Sarubera/Chainpur OCP should be stacked at earmarked one external OB dumpsite within ML area. 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 Bhubaneswar on yearly basis. The area of OB dump should be reduced. The grass turfing should be done on OB dumps.
- (v) Adequate numbers sprinklers should be provided on both the sides of road to minimize dust pollution.
- (vi) 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 utilised for watering the mine area, roads, green belt 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 provide adequate retention period to allow proper settling of silt material.
- (vii) 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.

- (viii) Water sprinkling system (mist spray type) shall be provided to check fugitive emission from conveyor system, haulage roads and transfer points.
- (ix) Fixed sprinkler shall be installed at pit-top truck loading hoppers in all the three mines, Ramgarh siding for dust control during coal loading. Adequate numbers sprinklers should be provided on both the sides of road to minimize dust pollution.
- (x) Drills should be wet operated only.
- (xi) An Action Plan for mine closure with details of area, depth, voids and the details of abandoned mines should be submitted to the Ministry. This may also be provided as mentioned in Kuju area.
- (xii) Controlled blasting should be practiced with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented.
- (xiii) Transportation shall be by covered trucks of higher capacity (25-tonne) and loading shall be by pay loaders. Mechanized loading should be introduced in due course of time at the Railway siding. Mechanically covered truck should be provided for transportation of coal
- (xiv) Area brought under afforestation from the three mines shall not be less than 245.41 ha by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.
- (xv) Extensive plantation should be done near agriculture area to avoid coal dust pollution which may affect the productivity of crop.
- (xvi) Mine discharge water shall be treated to meet the prescribed standards before discharge into natural water course / agriculture. The quality of water discharged shall be monitored at the outer point and proper records maintained thereof and uploaded regularly on the company website.
- (xvii) No groundwater shall be used for the mining activities. Additional water required, if any, shall be met from mine water or by recycling/reuse of the water from the existing activities and from rainwater harvesting measures. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry to dewatering of mine.
- (xviii) Regular monitoring of groundwater level and quality of the study area shall be carried out by establishing a network of existing wells and construction of new piezometers. 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 including Arsenic and Fluoride during the month of May. Data thus collected shall be submitted to the Ministry of Environment & Forest and to the Central Pollution Control Board/SPCB quarterly within one month of monitoring. Rainwater harvesting measures shall be undertaken in case monitoring of water table indicates a declining trend.
- (xix) Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern, water bodies, vegetation, structure, roads, and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures shall be taken to avoid loss of life and material. Cracks shall be effectively plugged with ballast and clayey soil/suitable material.
- (xx) Sufficient coal pillars shall be left unextracted around the air shaft (within the subsidence influence area) to protect from any damage from subsidence, if any.
- (xxi) High root density tree species shall be selected and planted over areas likely to be affected by subsidence.
- (xxii) Depression due to subsidence resulting in water accumulating within the low lying areas shall be filled up or drained out by cutting drains.
- (xxiii) Solid barriers shall be left below the roads falling within the blocks to avoid any damage to the roads.

- (xxiv) No depillaring operation shall be carried out below the township/colony.
- (xxv) The proponent shall ensure to undertake and provide for the costs incurred for taking up remedial measures in case of soil.
- (xxvi) Extensive plantation should be done near agriculture area to avoid coal dust pollution which may affect the productivity of crop.
- (xxvii) ETP shall also be provided for workshop, and CHP, if any. Effluents shall be treated to confirm to prescribed standards in case discharge in to any water course outside the lease. The quality of water discharged shall be monitored at the outer point and proper records maintained thereof and uploaded regularly on the company website.
- (xxviii) A detailed plan for CSR with specific budgetary allocation (capital and revenue) for various skill development and alternate livelihood programmes and schemes shall be implemented and the impacts activities under CSR monitored based on in a scientific methodology. An amount of Rs. 5 per tonne of coal produced with escalation factor shall be utilised for CSR activities for the adjoining villages for the balance life of the project apart from one time capital expenditure of Rs 1.25 Lakhs . The details of CSR undertaken along with budgetary provisions for the village wise various activities and expenditure thereon shall be uploaded on company website every year. CSR Audit should be carried conducted annually.
- (xxix) A special Corpus Fund either at company level or in CIL/MOC be provided for reclamation of abandoned and degraded areas.
- (xxx) For monitoring land use pattern and for post mining land use, a time series of landuse 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. The post-mining land use of Ara Surubera Group of mines shall be that out of the total 1194.85 ha area, 245.41 ha area will be under plantation. 85.84 ha area will be for water body, 479.49 ha area for public use, 384.11ha area shall be undisturbed.
- (xxxi) The mine void should be in 13.53 ha area with 20 mt depth after refilling the OB in quarry 3. There shall be no void in quarry 1&2. Ara OCP area and depth of void of quarry no. 3 should be up to 20 mt. Details be submitted to the MoEF for record. This be achieved by rehandling of OB Dumps in the area.
- (xxxii) A Final Mine Closure Plan along with a plan for Habitat Restoration and with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests for approval five years in advance of final mine closure for approval. The species selected for Habitat Restoration for post-mining and shall include a specific plan for development of agro forestry using a mix native species found in the study area.
- (xxxiii) A special Corpus Fund either at company level or in CIL/MOC be provided for reclamation of abandoned and degraded areas.
- (xxxiv) Although Ara-Surubera seam is reported to be not in the continuation as that of Jharia seam, lessons from Jharia coal mining fire and adequate precautions be taken to prevent any chances of fire in Ara-Surubera.
- (xxxv) The possibility of sand stone, wherever is present in the OB as per lithology report, be explored and be provided to locals free of cost
- (xxxvi) The mine void should be in 13.53 ha area with 20 mt depth after refilling the OB in quarry 3. There shall be no void in quarry 1&2. This be achieved by rehandling of OB Dumps in the area. contamination, contamination of groundwater and surface water, and occupational and other diseases due to the mining operations
- (xxxvii) 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.
- (x) 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.
- (xi) 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.
- (xii) 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.
- (xiii) 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>.
- (xiv) 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.
- (xv) 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.
- (xvi) 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.
- (i) 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. Compliance of the EC conditions be monitored by the MoEF and other concerned agencies.
- (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 Form –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.

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

7. 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.

8. 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 groundwater and surface water, and occupational and other diseases due to the mining operations.

(Dr. Manoranjan Hota)
Director

Copy to:

1. Secretary, Ministry of Coal, Shastri Bhawan, New Delhi.
2. Secretary, Department of Environment & Forests, Government of Jharkhand, Secretariat, Ranchi.
3. Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, A/3 Chandrashekar pur, Bhubaneswar – 751023.
4. Chairman, Jharkhand State Pollution Control Board, TA Building, HEC Complex, PO Dhurwa, Ranchi.
5. Chairman, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -110032.
6. Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
7. District Collector, Ramgarh, Government of Jharkhand.
8. Monitoring File 9. Guard File 10. Record File

(Dr. Manoranjan Hota)
Director