



Ministry of Environment & Forests (MOEF)

No.J-11015/03/2008-IA.II(M)

Paryavaran Bhawan,
C.G.O.Complex,
New Delhi -110510.

To

Dated: 21st December 2011

Managing Director,
M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd.,
Vidyut Bhawan,
Janpath, Jyoti Nagar,
JAIPUR - 302005.

Sub: Parsa East and Kanta Basan Opencast Coal Mine Project (10 MTPA) and Pit Head Coal Washery (10 MTPA) of M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd., located in Hasdeo-Arand Coalfields, in villages Parsa, Kente, Basan, Salhi, Hariharpur, Ghatbara, Parogiya, Tehsil Udaypur, Dist. Sarguja, Chhattisgarh- Environmental clearance - reg.

Sir,

This is with reference to letter No. RVUN/Dy. CE (fuel)/XEN (F)/F./D. 544 dated 29.12.2007 along with application for Terms of Reference (TOR) for a new **Parsa East and Kanta Basan Opencast Coalmine Project of 10 million tonnes per annum (MTPA) production capacity** and this Ministry's letter dated 13.03.2008 granting the TOR and subsequent letter No. RVUNL/CE (PPC&F)/F./D.557 dated 29.05.2008 along with application for TOR for a pit head coal washery of 10 MTPA capacity and this Ministry's letter dated 11.07.2008 granting the TOR and your application for environmental clearance dated 27.07.2009 for the **Parsa East and Kanta Basan Opencast Mine Project-cum-Pit head Coal Washery** and subsequent letters dated 14.09.2009, 29.10.2009, 30.11.2009, 22.01.2010, 29.06.2011, 23.08.2011, 24.08.2011, 19.09.2011, 29.09.2011 and 14.10.2011. In addition, letter No. F 5-9/2008/10-2 dated 22.09.2009 of the Secretary, Forest Dept., Government of Chhattisgarh along with letter dated 17.09.2009 of Office of Principal Chief Conservator (Wildlife) and Chief Wildlife Warden, Government of Chhattisgarh and subsequent letter No 3306/2299/2011/10-2 dated 06/09/2011 of Additional Secretary Forest Dept., Govt. of Chhattisgarh have also been received on the project in the Ministry. The Ministry of Environment & Forests has considered the application. It is noted that the proposal is for opening a new **Parsa East and Kanta Basan Opencast Mine project of 10 MTPA production capacity in a total project area of 2711.034 ha** along with a pit head coal washery of 10 MTPA (ROM) to be located within the leasehold of the mine located in Hasdeo-Arand Coalfields in Tehsil Udaypur, Dist. Sarguja, Chhattisgarh. Grade of coal is mainly G. The washed coal is for captive consumption of linked Thermal Power Plants - Chhabra Phase-II (2x 250 MW) and Jhalawar (Kalisindh 2x 600 MW) of the company located in Rajasthan. Rated capacity of 10 MTPA would be achieved during the third year. An estimated 2.25 MTPA of coal rejects would be generated in the coal washery which should be fully utilised in the proposed 135 MW pithead FBC based TPP, the exact location of which is being finalised in consultation with the villagers. The pit head FBC based TPP would be established within two years of commissioning of the pit head Washery.

The total project area is 2711.034 ha which includes a total mining lease area of 2388.525 ha and 322.509 ha outside the ML area for infrastructure and external OB dumps. Of the total project area of 2711.034 ha, 1898.328 ha is forestland, 702.163 ha is agricultural land, and 110.543 ha is Govt. wasteland. The project is to be operated in two phases of 15 years each. The total land requirement for phase -I (for the initial 15 years) is 1300.5 ha, of which 762.0 ha is

forest land, 538.50 ha is non-forest land and a total area of 1410.534 ha of the total lease area is required for phase -II (from 16th year onwards), of which 1136.328 ha is forestland and 274.206 ha is non-forest land. There are no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 15 km buffer zone. River Atern and streams joining it from the block control the drainage of the project area and the direction of flow of River Atern is away from the Hasdeo-Arand coalfield. There are 16 protected forests and one reserved forest within the study area of which two are located within the core zone - Phatepur PF and Matringa PF. Since the mine lease is on the fringe of Hasdeo-Arand coalfield, the forests of the Hasdeo-Arand coalfields would not be fragmented. Forestry clearance has been obtained 1898.328ha of forest land vide MOEF letter No. letter No. 8-31/2010-FC dated 06.07.2011. A number of endangered fauna such as the Indian Elephant, Sloth Bear, Leopard, Hyeana, etc are found in the study area. Elephants have been reported about 10km from the ML. The CWLW, Govt. of Chhtatisgrah has stated that the area does not form a part of the Elephant Reserve. Forest cover of Phase-II would be left undisturbed during Phase-I of operation (15 years) of mining and available for wild life which venture into the habitat. During Phase-II (after 15 years), forest cover (with native species) grown in Phase-I area after reclamation, would also be available for the wild life. The mine is surrounded by forest area in the southern and eastern parts of the mine which would also provide continuity, shelter, food and water to the fauna present in the area. An amount of Rs 22 crores has been earmarked for WL Conservation Plan, which is being prepared by the WII, Dehradun within 4-6 months. The Plan would include - strict fire control, protection from grazing, deepening of old tanks and desilting ponds and tanks, and erection of check dams, management of existing pasturelands and development of new pasture land consisting of native species, nursery for conserving bio-diversity of native species, identification and management of specific areas such as habitats, riparian zones, etc. The migratory corridor between Samar - Sol Elephant Reserve in district Sarguja and Badal Khol Reserve in district Jashpur would be strengthened through the proposed Wild Life Conservation Plan.

Of the total project area of 2711.034 ha, 2388.525 ha is quarry area, 165.83 ha is for external OB dump, 47.34 ha is for coal washery (of which 30 ha is for the Plant and storage area and the balance 17.34 ha is for green belt), 31.44 ha is for colony, 21.62 ha is for infrastructure which includes a 10 MTPA capacity CHP, and 56.279 ha is area for safety zone and for rationalisation. Of the total forestland of 1898.328 ha, 1654.109 ha is protected forests, 214.963 ha is Chote Jhar ke Jungle, and 29.256 ha is Bade Jhar Ke Jungle. The project is opencast mining by mechanised method involving shovel-and-dumper and surface miners which would eliminate drilling and blasting for coal extraction. Drilling and blasting would be required for OB removal. Blasting would be by use of delayed electric detonator. Grade of coal is F. Water table is in the range of 3.50-8.20m bgl during pre-monsoon and near surface-6m bgl during post-monsoon. The total estimated OB generation from the mine is 2334.62 Mm³/day (560.11Mm³ in Phase-I and 1774.51 Mm³ in Phase -II). The total estimated top soil generation in the entire mine life is 30.13 Mm³ (Phase -I-12.80 Mm³, Phase -II-17.33). Of an estimated 2334.6 Mm³ of OB generated over the life of mine, 64.40 Mm³ of OB would be dumped in two external OB dumps of a max. height of 60m and 90m in an area of 165.83 ha, and the balance 2270.22 Mm³ of OB would be backfilled in the decoaled void. Mining would be sequential and backfilling would begin at the end of 3rd year which would continue till end of mine life and there would be no external dumping from 4th year onward. An estimated 30.13 mm³ of topsoil would be generated over the life of the mine, which would be used for green belt development and mine reclamation. Backfilling would begin from the 4th year, and there would be no external dumping from 4th year onwards. Ultimate working depth of the mine is 225m below ground level (bgl). At the post mining stage, the entire quarry area would be backfilled and reclaimed with vegetation and there would be no void left as a water body.

The proposed coal washery to be established within the ML would be wet process based on heavy media/cyclones/jigs for washing raw coal from the coalmine of 32.1%-54.2% ash content and clean coal (7.75 MTPA) after washing would have an ash content of 29.5-30.5%. Transportation of 30,300 TPD raw coal (of 40% ash content) from the mine pit to the surface and to CHP and thereafter by closed belt conveyors to the coal washery. Clean coal (of ash content of 30.5% or less) and middling from the pit head coal washery would be loaded by rapid loading system and transported by rail via Surajpur Railway Station to linked TPPs located at a distance of 78km. A Railway Siding is proposed to be commissioned within 24 months adjoining the mine. The balance 2.25 MTPA of coal rejects of 72% ash content would be utilised for power generation in an FBC based

Thermal Power plant also to be established within the ML. Coal rejects would be dispatched to the FBC based TPP through a closed belt conveyor.

Peak water requirement would be 9000 m³/d, which includes 3600 m³/d for the mine and 5400 m³/d for the coal washery (which includes 3750 m³/d make-up water for the coal washery and 1650 m³/d for dust suppression); which will be met from mine pit water and rainwater. The first year's water requirement for the project would be met from tube well and thereafter tubewell water is for domestic consumption only. Clearance from groundwater angle has been obtained from the Central Ground Water Authority on 23.09.2009 for use of groundwater to an extent of 615 m³/d. An STP is proposed for the colony.

The project involves R&R of 5 villages - Parsa, Kente, Salhi, Hariharpur, and Ghatbara comprising 243 home and land losers, 56 homestead losers and 159 land losers. An R&R Action Plan for Rs 20.693 crores has been prepared. A CSR Action Plan has been prepared which includes activities for tribal welfare. A sum of Rs. 10 crores as one time capital expenditure and Rs 5/T annually for coal production for the life of the mine has been earmarked for activities under CSR to be taken up for the adjoining villages. Community development work would be carried out which includes skill development of the local communities and addressing issues such as availability of minor forest produce for the tribal/local communities. Public Hearing was held for the coalmine project-cum-coal washery on 16.01.2009. Life of the mine-cum-coal washery at the rated capacity of 10 MTPA is 45 years. Mining Plan was approved by Ministry of Coal on 16.07.2009. Capital cost of the Coalmine project Rs 1120.25 crores and for the coal washery is Rs 88 crores.

2. The Ministry of Environment & Forests hereby accords environmental clearance for the above-mentioned **Parsa East and Kanta Basan Opencast Mine Project of 10 MTPA production capacity along with a pit head coal washery (10 MTPA ROM) of M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd., involving a total project area of 2711.034 ha** under the Environmental Impact Assessment Notification, 2006 and subsequent amendments thereto and Circulars thereunder subject to the compliance of the terms and conditions mentioned below:

A. Specific Conditions

- (i) The maximum production of Parsa East and Kanta Basan Opencast Mine Project shall not exceed 10 MTPA production capacity and the production of pit head coal washery shall not exceed 10 MTPA ROM.
- (ii) The exact location of the FBC based TPP shall be finalised within 2 months in consultation with the villagers and an application for TOR submitted to the MOEF immediately thereafter. The location of CHP, Washery and the FBC shall be taken up in an integrated manner vis-à-vis transportation of coal (raw, clean coal, and coal rejects) from the mine, CHP, washery and FBC based TPP by closed conveyors only.
- (iii) The estimated 2.25 MTPA of coal rejects shall be fully utilised for power generation in an FBC based Thermal Power Plant being established within the ML. Coal rejects shall be dispatched to the FBC based TPP through a closed belt conveyor. The linked 135 MW FBC Power Plant shall be commissioned in 2-3 years. Until an FBC based TPP is established, the coal rejects shall be sold during the initial 2-3 years, to users of coal rejects for which an Agreement shall be entered into. There shall be no storage of coal rejects within the project area beyond 2-3 months of its generation.
- (iv) Coal transportation of clean coal and middling to the linked TPPs located at a distance of 78km, shall be entirely by rail or by conveyor-cum-rail mode only except for the initial 2-3 years.
- (v) A Railway Siding to be established adjoining the mine shall be commissioned within 24 months. Until the railway Siding is constructed and commissioned, transportation of clean coal and middling to the linked TPPs at Rajasthan shall be by high capacity trucks (30-T or more) only. Clean coal and middling from the pit head coal washery shall be loaded by

rapid (silo) loading system and transported by rail only after the commissioning of the railway siding and establishment of rail network to Surajpur TPS located at a distance of 78km.

- (vi) Transportation of 30,300 TPD raw coal (of 40% ash content) from the mine pit to the surface and to CHP and thereafter to the coal washery shall be by closed belt conveyors only. Transport of coal rejects to the FBC based TPP shall also be by closed belt conveyors only.
- (vii) The drainage of River Atern outside the project area shall not be disturbed through construction of embankment or by diversion of nalas/streams without prior study and approval.
- (viii) Topsoil shall be stacked properly within the dump area with proper slope at earmarked site(s) and shall be used concurrently for reclamation and development of green belt within a year of its generation.
- (ix) Sequential mining shall be undertaken for the two-phases and internal dumping (backfilling) would be started at the end of 3rd year and no external dumping from 4th year onwards. By the end of phase -I (15th year), about 74% of the total excavated area would be backfilled and reclaimed. At the end of project an area of 1929.84 ha would be reclaimed out of a total ML area of 2388.53 ha. There shall be no external OB dumping from the end of 3rd year onwards.
- (x) OB shall be stacked at earmarked external OB dumpsite of 165.83 ha within ML area and shall be a maximum height of 60m and one of 90m with a bench height of 30m each. The ultimate slope of the dump shall not exceed 28°. Monitoring and management of existing 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 Bhopal on yearly basis.
- (xi) 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.
- (xii) 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 be provided for adequate retention period to allow proper settling of silt material.
- (xiii) 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.
- (xiv) There shall be no drilling and blasting for coal extraction and use of shovel and dumper combination with drilling and blasting shall be for OB removal only. Controlled blasting shall be practiced only during daytime with use of delay electric detonators. Drills shall be wet operated. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.
- (xv) The raw coal, washed coal and coal wastes (rejects) shall be stacked properly within the washery premises at earmarked site(s) within stockyards of one-day storage capacity fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored raw coal, washed coal and coal wastes do not catch fire.
- (xvi) Crushers at the CHP shall be operated with high efficiency bag filters, water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system,

haulage roads, transfer points, etc. Hoppers of the coal crushing unit and washery unit shall be fitted with high efficiency bag filters and mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points, stockyards and at the Railway Siding.

- (xvii) All approach roads shall be black topped and internal roads and major haul roads shall be black topped or concreted and swept regularly with mechanical sweepers. A 3-tier avenue plantation using local species shall be developed along the main roads, and approach roads to the mine and to the washery and to Railway Siding. In addition, green belt shall be developed using local species all along the periphery of the site, along the areas such as the washery unit, crushing unit, and stockyards. Railway Siding and Silo Loading Area shall be properly maintained and green belt developed all around it. Water sprinkling arrangements shall be established and functional during transfer and loading of coal.
- (xviii) A 30m green belt consisting of a 3-tier plantation using native species shall be developed between quarry and villages, and external OB dump and villages and the R&R site. The green belt/plantation using a mix of native species shall be developed within two three years of grant of environmental clearance.
- (xix) Proper records of quantum of raw coal, clean coal and coal rejects generated and being utilised shall be maintained. Proper records of ash content (of raw coal, clean coal and coal rejects) shall be maintained in this regard. The company shall enter into a contract for the use of coal rejects until the FBC TPP is commissioned within 24-36 months. The details of quantum and ash content of raw coal, clean coal and coal rejects generated and utilised shall be uploaded regularly on the company website.
- (xx) The Washery unit shall be a zero-discharge facility and no wastewater shall be discharged from the washery into the drains/natural watercourses. Recycled water shall be used for development and maintenance of green belt and in the Plant Operations. A Filter Press shall be installed in the washery plant for recovery of water.
- (xxi) The entire total estimated requirement of make-up water of 3750m³/day for the coal washery shall be met from mine water. No groundwater shall be used for the mine and Washery Plant Operations except for drinking purpose and during the initial first year of mine operation. Any additional water requirement envisaged for mine/washery operations shall be obtained from mine pit water, by recycle/reuse to the maximum extent and from rainwater harvesting measures.
- (xxii) Heavy metal content in raw coal, washed coal and coal rejects shall be analysed twice in a year and records maintained thereof and also uploaded on the company website.
- (xxiii) No fly ash from the linked TPPs shall be used in backfilling of the void without undertaking an environmental feasibility study and without prior approval of this Ministry under EIA Notification, 2006.
- (xxiv) Area brought under afforestation shall not be less than 2600.633ha, which includes reclaimed external OB dump (165.83 ha), topsoil dump, backfilled area (2365.949 ha), along ML boundary, infrastructure and washery area (26.976 ha), along roads, green belt (41.878 ha), in undisturbed areas/safety zone and in colony by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha.
- (xxv) A Plan for OB dumping and management so that there is no void left at the post mining stage shall be submitted to the Ministry immediately. A Progressive Mine Closure Plan shall be implemented by reclamation of the total quarry area of 2365.949 ha backfilling and reclamation by afforestation, to create a 3-storeyed forest in lieu of original forest, by planting native species in consultation with the local DFO/Agriculture Department/relevant

institution. The density of the trees shall be around 2500 plants per ha. At the post mining stage, the entire quarry area shall be backfilled and reclaimed with vegetation and there shall be no void left as a water body.


- (xxvi) A Conservation Plan (in-situ and ex-situ) for endangered faunal species reported in the study area and for the medicinal plants found in and around the project area shall be prepared in consultation with Wildlife Institute of India, Dehradun within 4 months from date of environmental clearance and the Plan shall be implemented in consultation with the State Forest and Wildlife Departments. An in-situ conservatory of species found in the pre-mining original ecosystem and rare and endangered plant species including medicinal plants species found in the study area during pre-mining phase shall be established and reintroduced during mine reclamation and habitat restoration. The Conservation Plan shall include conservation of areas within the project boundary to be left undisturbed as free passageways for the wildlife to reach the forests in the study area. The Conservation Plan shall also include activities of mine reclamation and wildlife habitat restoration of mined out areas within the core zone and project area using native species representative of the forest ecosystem during the pre-mining phase. Separate funds of Rs. 20 crores as capital costs and Rs. 2 crores as revenue costs shall be earmarked for implementation of the various activities under the Conservation Plan. The status of the Conservation Plan including financial status shall be reported once a year as part of the monitoring report to this Ministry and to the MOEF Regional Office, Bhopal. The proponent shall also participate in the Regional Wildlife Conservation Plan (RWLCP) for the study area prepared by the State Wildlife Dept. and in addition to the above funds shall also contribute financially for implementation of the RWLCP. Habitat development/conservation measures along the migratory route/habitats of elephants found/visiting the area shall form a part of the Regional Action Plan.
- (xxvii) Regular monitoring of groundwater level and quality 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 in May and in monsoon. 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.
- (xxviii) The Company shall put up artificial groundwater recharge measures including rainwater harvesting structures for augmentation of groundwater resource in case monitoring indicates decline in water table. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- (xxix) ETP shall also be provided for workshop, and CHP. Effluents shall be treated to conform to prescribed standards, particularly for pH and TSS in case of discharge into any watercourse within or outside the lease.
- (xxx) An STP shall be provided for the township/colony to treat the domestic effluents to prescribed standards and for their reuse in project activities.
- (xxxi) Industrial wastewater (workshop and wastewater from the washery) 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 for treatment of workshop effluents.
- (xxxii) R&R Plan prepared for an estimated Rs. 20.693 crores shall be not less than the norms laid down/approval by the State Government and shall not be inferior than that in the National R&R Policy and shall be completed within a specified time-frame. R&R shall include specific income generation schemes and setting up of SHGs and cooperatives, and activities and assistance under the Tribal development Plan for the tribals being displaced and provision of annuities for the under-privileged sections. The provision also includes a Corpus Fund for the maintenance of the Resettlement site. The status of the Implementation of the R&R

Plan along with financial status of the activities undertaken shall be uploaded on the company website and updated at least once in a year.

- (xxxiii) The proponent shall provide not less than Rs. 10 crores towards capital costs and Rs 5/T of coal as revenue expenditure (which shall be up scaled after adjusting for depreciation of the rupee) towards activities undertaken under CSR for 12 villages - Salhi, Hariharpur, Parsa, Parogia, Basan, Shivanagar, Suskam, Sontarai, Janardanpur, Tara, Mendra and Fatehpur - for the life of the project. The activities shall include establishing/strengthening of schools roads, drainage and sanitation, community halls, drinking water in the villages and skill development of the local communities. The CSR Plan shall also include Tribal Welfare activities for the tribals and their skill development for alternate livelihood and addressing issues such as availability of minor forest produce for the tribal/local communities. The details of the activities and expenditure made thereon in each of the villages taken up under CSR shall be displayed on the company's website and updated at least once in six months. The socio-economic development of the villages shall be monitored over the life of the project using indices such as the UNDP Human Development Index.
- (xxxiv) 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 Bhopal.
- (xxxv) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests for approval 5 years in advance of final mine closure for approval. The Plan shall include habitat restoration of the project area consisting of a 3-storeyed forest ecosystem, using a mix of native species found in the pre-mining ecosystem in the study area.
- (xxxvi) A dedicated team drawn from disciplines of ecology, wildlife, sociology, hydrology, etc shall be engaged over the life of the project for implementation of Wildlife Conservation Plan, R&R and CSR Plan and for progressive and final mine closure plan and issues of habitat restoration.

B. General Conditions

- (i) No change in 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 including quantum of mineral coal and waste being produced 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 monitoring PM₁₀, PM_{2.5}, SO₂ and NO_x. 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, in the particulate matter etc. shall be 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, Cr, etc) and other monitoring data shall be regularly submitted to the Ministry including its Regional Office at Bhopal 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 EP Rules, 1986 shall be furnished as part of the 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, and treated so as to conform to the standards including for heavy metals before discharge prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.
- (vii) Vehicular emissions shall be kept under control and regularly monitored.
- (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 EP 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.
- (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 Bhopal.
- (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 concerned 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 the company's website.
- (xiv) A copy of the clearance letter shall 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 Centre 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 EC 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 the public domain. The monitoring data of environmental quality parameters (air, water, noise and soil) and critical pollutants such as PM10, PM2.5, SO₂ and NO_x (ambient and stack if any) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mines office and in corporate office and on the company's website.
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- (xvi) The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the MOEF, the respective Zonal offices of CPCB and the SPCB.
- (xvii) The Regional Office of this Ministry located at Bhopal 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 31st March in Form-V is mandated to be submitted by the project proponent to 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.
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 Environment (Protection) Act, 1986.
5. The above conditions will be enforced *inter-alia*, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and Rules. 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.T.Chandini)
Director

Copy to:

1. Secretary, Ministry of Coal, New Delhi.
2. DG (F) and Special Secretary, Ministry of Environment and Forests, New Delhi.
3. Secretary, Department of Environment & Forests, Government of Chhattisgarh, Secretariat, Raipur.
4. Principal Chief Conservator of Forests and CWLW, Govt. of Chhattisgarh, Raipur.
5. Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, E-2/240 Area Colony, Bhopal - 462016.
6. Chairman, Chhattisgarh State Environment Conservation Board, 1-Tilak Nagar, Shiv Mandir Chowk, Main Road, Avanti Vihar, RAIPUR-Chhattisgarh - 492001.
7. Chairman, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -110032.
8. Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
9. District Collector, Sarguja, Government of Chhattisgarh.
10. Monitoring File 11. Guard File 12. Record File.