

No.J-11015/1001/2007-IA.II(M) pt.
Government of India
Ministry of Environment, Forest & Climate Change
IA-II (Coal Mining) Division

Indira Paryavaran Bhawan,
Jorbagh Road, N Delhi-3
Dated: 13th February, 2017

To,

The General Manager (Environment),
M/s Western Coalfields Ltd.,
Coal Estate, 9th Floor, Civil Lines,
Nagpur - 1 (Maharashtra)

Email: gmenvironment.wcl@nic.in; wclenv@yahoo.in

Sub: Expansion of Gokul OCP from 1.0 MTPA to 1.875 MTPA in an area of 756.92 ha of M/s Western Coalfields Limited located in District Nagpur (Maharashtra) - Environmental Clearance - reg.

Sir,

This is with reference to your application No.WCL/ENV/HQ/9-G & 20-C/532 dated 07.11.2016 along with the online proposal No.IA/MH/CMIN/7059/2010 dated 31.10.2016 and subsequent letter dated 19.12.2016, 27.12.2016 & 28.12.2016 on the subject matter.

2. The Ministry of Environment, Forest & Climate Change has considered the application. It is noted that the proposal is for grant of environmental clearance to **Expansion of Gokul OCP from 1.0 MTPA to 1.875 MTPA in an area of 756.92 ha of M/s Western Coalfields Limited located in District Nagpur (Maharashtra).**

3. The proposal was considered by the Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Projects in its 1st meeting held on 27th December, 2016. The details of the project, as per the documents submitted by the project proponent, and also as informed during the meeting, are reported to be as under:-

- (i) The project was earlier accorded EC vide letter No.J-11015/1001/2007-IA.II (M) dated 7th January, 2011 for 1 MTPA capacity in a total area of 767.17 ha.
- (ii) Latitude and Longitude of the project site are 20° 39' 32" to 20° 41' 11"N and 79° 16' 53" to 79° 18' 47"E respectively.
- (iii) Joint Venture: No joint Venture.
- (iv) Coal Linkage: MAHAGENCO and other miscellaneous consumers.
- (v) Employment generated/to be generated: 40 land losers provided employment.
- (vi) Benefits of the project: Development of Gokul OCP has resulted in following benefits:
 - Improvements in physical infrastructure
 - Improvements in social infrastructure,
 - Increase in employment potential,
 - Contribution to the exchequer,
 - Meet energy requirement,
 - Post-mining enhancement of green cover



(vii) The land usage of the project will be as follows:

Pre-Mining:

| S.No. | Land use | Within ML Area (ha) | Outside ML Area (ha) | Total |
|-------|----------------------------|---------------------|----------------------|--------|
| 1 | Agricultural land | 705.96 | 5.00 | 711.96 |
| 2 | Forest land /Zudpi Jungle. | 11.90 | - | 11.90 |
| 3 | Waste land | 33.06 | - | 33.06 |
| 4 | Grazing land | -- | -- | -- |
| 5 | Surface water bodies | -- | -- | -- |
| 6 | Settlements | -- | -- | -- |
| 7 | Others (specify) | -- | -- | -- |
| | Total | 751.92 | 5.00 | 756.92 |

Post- Mining:

| S.N. | Land use during mining | Land use (ha) | | | | Total |
|------|------------------------|---------------|------------|------------|-------------|---------|
| | | Plantation | Water Body | Public use | Undisturbed | |
| 1 | External OB Dump | 123.9 | -- | -- | -- | 123.9 |
| 2 | Top soil dump | 30.75 | -- | -- | -- | 30.75-- |
| 3 | Excavation | 115.39 | 175.82 | -- | -- | 291.21 |
| 4 | Roads | 3.00 | -- | 36.00 | -- | 39.00 |
| 5 | Built up area | 3.00 | -- | 12.0 | -- | 15.00 |
| 7 | Undisturbed Area | 100.00 | -- | -- | 157.06 | 257.06 |
| | Total | 376.04 | 175.82 | 48.0 | 157.06 | 756.92 |

(viii) Total geological reserve is 26.988 MT. The mineable reserve 14.50 MT with the extractable reserve of 14.50 MT. The per cent of extraction would thus be 53.72%.

(ix) The coal grade is G-7. The stripping ratio is 1:9.37 Cum/tonne. The average Gradient is 1 in 7.5 to 1 in 12.5. There will be two seams with thickness ranging

| Quarry | Seam-V | Seam-II |
|------------------------|--------|---------|
| Average Seam Thickness | 2.00 m | 4.0 |

(x) Total estimated water requirement is 460 m³/day. The level of ground water ranges from 1.80 m to 12.15 m.

(xi) The method of mining would be inclined slicing, Shovel-Dumper Combination.

(xii) There is one external OB dump with quantity of 41.75 Mcum in an area of 123.9 ha with height of 60 m above the surface level and one internal dump with Quantity of 94.09 Mcum in an area of 115.39 ha.

(xiii) Final mine void would be in 175.82 ha with depth 100 m. Out of the total quarry area of 231.73 ha, backfilled quarry area of 115.39 ha shall be reclaimed with plantation. The mine void shall be proposed to be converted into a water body.

- (xiv) The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.
- (xv) The life of mine is 11 years.
- (xvi) Coal transportation in pit by dumpers from in pit to pit head coal handling plant, surface to siding by dumpers to pre-weigh bin and loading at siding by dumpers.
- (xvii) There is no R & R involved. There are 214.1214 PAFs.
- (xviii) Total capital cost involved is Rs.262.9210 crore. According to New CSR policy, the fund for the CSR should be allocated based on 2% of the average net profit of the Company for the three immediate preceding financial years or Rs. 5.00 per tonne of coal production of previous year whichever is higher. Environmental Management Cost Rs 40.55 Lakhs.
- (xix) Two small seasonal nallas originating near (South-eastern part of the project) proposed external OB Dump will be diverted. A Canal also exists in the north side of the proposed quarry. Tentative diversion route of the nalla have been shown on Quarry & surface layout plan.
- (xx) Mine Plan for the proposed expansion of Gokul OCP in an area of 756.92 ha was approved by the M/s WCL Board on 29th November, 2014. Mine closure plan is a part of the Mine plan approved by the Board.
- (xxi) There are no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 10 km buffer zone.
- (xxii) For diversion of 11.90 ha of forest land for non-forestry use, the stage-I forest clearance the proposal has been forwarded to MoEF, Regional Office Bhopal by the State Government of Maharashtra vide letter No. FLD-3413/CR-389 / F-10. dated 3rd July 2014. Reply to queries raised by CCF (c), MoEF Bhopal, have been submitted to Regional office, Bhopal on 22/9/2014. GPS plan has been submitted. NOC under FRA 2006 has been submitted.
- (xxiii) Total afforestation plan shall be implemented covering an area of 376.04 ha including green belt at the end of mining with density of tree plantation of 2500 trees/ha.
- (xxiv) There are no court cases/violation pending with the project proponent.
- (xxv) Public Hearing was held on 11th November, 2008 at village Tah Bhiwpur District Nagpur.
- (xxvi) The Regional Office of MoEFCC at Nagpur has carried out the site inspection on 5th November, 2015 to verify the status of compliance of EC conditions. The monitoring report was forwarded to this Ministry vide their letter No. 3-1/2011(Env)/1294 dated 26th November, 2015. The project proponent informed about the action taken on each of the observations during monitoring and presented before the EAC during the meeting.

4. The EAC, after detailed deliberations on the proposal in the 1st Meeting on 27th December, 2016 decided for exempting the proposal from the requirement of fresh TOR and fresh Public Hearing, and recommended the proposal for grant of Environmental Clearance. The Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to the **Expansion of Gokul OCP from 1.0 MTPA to 1.875 MTPA in an area of 756.92 ha of M/s Western Coalfields Limited located in District Nagpur (Maharashtra)** under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms and conditions and environmental safeguards mentioned below:

A. Specific Conditions

- (i) The maximum production from the mine at any given time shall not exceed the limit as prescribed in the EC.
- (ii) The validity of the EC is for the life of the Mine or as specified in the EIA Notification, 2006, whichever is earlier.
- (iii) The project proponent shall produce Consent to Operate from the State Pollution Control Board for the existing production capacity of 1 MTPA and also the Consent to Establish for the proposed capacity of 1.875 MTPA prior to enhancing the production capacity.



- (iv) Transportation of coal should be carried out by covered trucks. Mitigative measures to be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient numbers of water sprinklers.
- (v) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- (vi) Controlled blasting techniques should be adopted to control ground vibration and fly rocks.
- (vii) A progressive afforestation plan shall be implemented covering an area of 376.04 Ha at the end of mining, which includes reclaimed External OB dump area (123.9 Ha), Internal OB dump area (115.39 Ha) and Green belt (Included in total plantation) and in township located outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha. Massive plantation shall be carried out in open spaces in and around the mine and a 3-tier avenue plantation along the main approach roads to the mine.
- (viii) An estimated total 135.84 Mm³ of OB will be generated during the entire life of the mine. Out of which 41.75 Mm³ of OB will be dumped in one external OB Dumps an earmarked area covering 123.9 ha of land. 94.09 Mm³ of will be one internal OB dump in covering an area of 115.39 ha. The maximum height of external OB dump will not exceed 90 m and that for soft OB shall not exceed 60 m. The maximum slope of the dump shall not exceed 28 degrees. Monitoring and management of reclaimed dump sites shall continue till the vegetation becomes self- sustaining and compliance status shall be submitted to MOEFCC and its Regional Office on yearly basis.
- (ix) Of the total quarry area of 231.73 Ha (On floor) & 291.21 Ha (On surface), the backfilled quarry area of 115.39 ha shall be reclaimed with plantation and there will be no void left at the end of the mining operations. The land after mining shall be restored for agriculture purpose.

B. General Conditions

(a) Mining

- (i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment, Forest and Climate Change.
- (ii) No change in the calendar plan including excavation, quantum of coal and waste should be made.
- (iii) Mining shall be carried out as per the provisions outlined in approved mining plan as well as by abiding to the relevant laws related to coal mining and the circulars issued by Directorate General Mines Safety (DGMS).
- (iv) A progressive Mine Closure Plan duly approved by the Ministry of Coal should strictly be complied with. A compliance report in this regard shall be submitted to Regional Office/ MOEF&CC every six month from the date of commencement of mining operations.

(b) Land Reclamation

- (i) Digital processing of the entire lease area using remote sensing technique shall be carried out regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment, Forest and Climate Change its Regional Office.
- (ii) The reclamation at waste dump sites shall be ecologically sustainable. Scientific reclamation shall be followed. The local species may be encouraged and species are so chosen that the slope, bottom of the dumps and top of the dumps are able to sustain these species. The aspect of the dump is also a factor which regulates some climatic parameters and allows only species adopted to that micro climate.



- (iii) Final mine void depth should not be more than 40 m. The void area should be converted into water body. The remaining area should be back filled up to the ground level and covered with about a meter thick top soil. The land after mining should be restored for agriculture use.
- (iv) The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
- (v) Plantation shall be raised in a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department and as per CPCB Guidelines. The density of the trees should be around 2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.

(c) Emissions, Effluents, and Waste Disposal

- (i) Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM₁₀ and PM_{2.5} such as haul road, loading and unloading point and transfer points. Fugitive dust emissions from all the sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
- (ii) 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.
- (iii) 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 concerned Regional Office 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.
- (iv) Transportation of the coal by road passing through the village shall not be allowed. A 'bypass' road should be constructed (say, leaving a gap of at least 200 meters) for the purpose of transportation of the coal so that the impact of sound, dust and accidents could be mitigated. The project proponent shall bear the cost towards the widening and strengthening of existing public road network in case the same is proposed to be used for the Project. No road movement should be allowed on existing village road network without appropriately increasing the carrying capacity of such roads. Furthermore, transportation of coal by road should be carried out by covered trucks only. A 3-tier green belt comprising of a mix of native species shall be developed all along the major approach roads.
- (v) The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain 'PUC' certificate for all the vehicles from authorized pollution testing centres.
- (vi) Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers. Crusher and

material transfer points should invariably be provided with Bag filters and or dry fogging system. Belt-conveyors should be fully covered to avoid air borne dust. Use of effective sprinkler system to suppress fugitive dust on haul roads and other transport roads shall be ensured. Drills shall be wet operated.

(vii) The Project Proponent should not alter the major channels around the site. Appropriate embankment should be provided along the side of the river/nallah flowing near or adjacent to the mine. The embankment constructed along the river/nallah boundary should be of suitable dimensions and critical patches should be strengthened by stone pitching on the river front side and stabilised with plantation so as to withstand the peak water flow and prevent mine inundation.

(viii) There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.

(ix) The Project Proponent has to take care of gullies formed on slopes. Dump mass should be consolidated with proper filling/leveling with the help of dozer/compactors.

(x) Sufficient number of Gullies to be provided for better management of water. Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, coal heaps and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. The drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dumps to prevent run off of water and flow of sediments directly into the river and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) 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. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals. Dimension of the retaining wall to be constructed 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.

(xi) Industrial waste water (CHP, workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents. Sewage treatment plant of adequate capacity shall be installed in the existing colony and offices.

(d) Noise & Vibration Control

(i) 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.

(ii) Controlled blasting techniques should be practiced with use of delay detonators to mitigate ground vibrations and fly rocks.

(iii) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.

(iv) Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of Coal Handling Plants and HEMM, etc. should be provided with ear plugs / muffs.



(e) Occupational Health & Safety

- (i) Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The prevention measure for burns, malaria and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities.
- (ii) Besides carrying out regular periodic health check-up of their workers, 20% of the workers identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, through an specialised agency /institution within the District/State and the results reported to this Ministry and to DGMS.
- (iii) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Supervisory staff shall be held responsible for ensuring compulsory wearing of dust mask.
- (iv) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (v) In case of outsourcing of work through MDO, the project proponent shall ensure the strict compliance enforcement of the above conditions.

(f) Biodiversity

- (i) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.

(g) Implementation of Action Plan as Per Public Hearing & CSR Activities

- (i) Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall complete all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing. Land oustees should be compensated as per the norms laid out R&R Policy of the Company or the National R&R Policy or R&R Policy of the State Government, whichever is higher.
- (ii) The Board of every company, shall ensure that the company spends, in every financial year, at least two per cent. of the average net profits of the company made during the three immediately preceding financial years, in pursuance of its Corporate Social Responsibility Policy under Section 135 of the Companies Act, 2013, for the Socio Economic Development of the neighborhood Habitats which could be planned in consultation with the Panchayat of the local administration, and executed by the Project Proponent more systematically based on the 'Need based door to door survey' by established Social Institutes/Workers. A report, in consonance with the format prescribed in Annexure of the Companies (Corporate Social Responsibility Policy) Rules, 2014, shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
- (iii) The project proponent shall follow the mitigation measures provided in Office Memorandum No.Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages

are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".

(iv) The Project Proponent shall make necessary alternative arrangements, where required, in consultation with the State Government to provide alternate areas for livestock grazing, if any. In this context, Project Proponent should implement the directions of the Hon'ble Supreme Court with regard to acquiring grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded against felling and plantation of such trees should be promoted.

(h) Corporate Environment Responsibility

- (i) The Company should have a well laid down Environment Policy approved by the Board of Directors.
- (ii) The Environment Policy should prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
- (iii) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions should be displayed on website of the Company.
- (iv) To have proper checks and balances, the Company should 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.
- (v) A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- (vi) The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office.

(i) Statutory Obligations

- (i) Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, NGT and any other Court of Law, if any, as may be applicable to this project.
- (ii) This Environmental Clearance is subject to obtaining requisite NBWL Clearance from the Standing Committee of National Board for Wildlife, if any, as applicable for this Mining project.
- (iii) The Project Proponent shall obtain Consent to Establish and Consent to Operate from the concerned State Pollution Control Board prior to commencement of mining operations and effectively implement all the conditions stipulated therein.
- (iv) The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water) for the project.
- (v) Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.

(j) Monitoring of Ambient Air & Water Quality and Reporting

- (i) Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board. The critical parameters as per

the Notification such as PM₁₀, PM_{2.5}, NO_x and SO_x etc. in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.

(ii) The Proponent shall install online Ambient Air Quality Monitoring System and there should be system for display of digital AAQ data within 03 months at least at three locations as per wind direction. Online provisions of pH and turbidity meters at discharge points of STP and ETP and also at water storage ponds in the mining area may be made. Project Proponent should display the result digitally in front of the main Gate of the mine site.

(iii) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations. The monitoring shall be carried out four times in a year pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board.

(iv) Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table.

(v) Regular monitoring of water quality upstream and downstream of water bodies shall be carried out and record of monitoring data should be maintained and submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.

(vi) The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest and Climate Change, its Regional Office, Central Pollution Control Board and State Pollution Control Board.

(vii) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.

(viii) The activities pertaining to development of green belt/ horticulture shall be reported to concerned DFO/Collector on six monthly basis from the date of commencement of mining operations.

(k) Miscellaneous

(i) For half yearly monitoring reports, the data should be monitored for the period of April to September and October to March of the financial years and submitted to the concerned authorities within 2 months of the completion of periodicity of monitoring. Similarly, the annual reports for the financial year should reach the office of the concerned authority on or before 1st June of following year.

(ii) Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.

(iii) The project authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.

(iv) A copy of clearance letter will be marked to concerned Panchayat/local NGO, if any, from whom suggestion / representation has been received while processing the proposal.

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

(vi) A copy of the EC 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 Office for 30 days.

(vii) The EC 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 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.

(viii) The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue 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 also at web site of the Ministry of Environment, Forest and Climate Change at www.environmentclearance.nic.in and a copy of the same should be forwarded to the Regional Office.

(ix) The Environmental Statement for each financial year ending 31 March in Form-V is mandated to be submitted by the PP 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&CC by e-mail.

5. The PP shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during their presentation to the EAC. The commitment made by the project proponent to the issue raised during Public Hearing shall be implemented by the proponent.

6. The project proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection.


7. The PP shall set up an Environment Audit cell with responsibility and accountability to ensure implementation of all the EC Conditions.

8. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this EC and attract action under the provisions of 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 and any other orders passed by the Hon'ble Supreme Court of India/High Courts and any other Court of Law relating to the subject matter. The PP 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.


10. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

11. This EC supersedes the earlier EC granted vide letter No. J-11015/1001/2007-IA.II(M) dated 7th January, 2011 for a capacity of 1.0 MTPA involving a total area of 767.17 ha.


13/2/2017
(S. K. Srivastava)
Scientist E

Copy to:

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi.
2. The Secretary, Department of Environment, Government of Maharashtra, 15th Floor, New Admn. Bldg., Madam Cama Road, MUMBAI - 32.
3. The APCCF, Ministry of Environment Forest and Climate Change, Regional Office (Western Central Zone), Ground Floor, East Wing, New Secretariat Building Civil Lines, Nagpur Maharashtra - 1
4. The Member Secretary, Maharashtra State Pollution Control Board, Kalapataru Point, 3rd & 4th Floors, Sion, Matunga Scheme Road No. 8, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai - 400 002.
5. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi -110 032.
6. The Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
7. The District Collector, Nagpur, Government of Maharashtra
8. Monitoring File 9. Guard File 10. Record File 11. Notice Board.


13/2/2017
(S. K. Srivastava)
Scientist E



Ministry of Environment & Forests (MOEF)

BY SPEED POST

No. J-11015/1001/2007-IA.II (M)

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

Dated: 7th January 2011

To
Chief General Manager
M/s Western Coalfields Ltd.
Coal Estate, Civil Lines,
NAGPUR – 440001.

Subject: Gokul OCP (1 MTPA of 767.17 ha) of M/s Western Coalfields Limited, located near village Piraya, in Tehsil Umrer, Dist. Nagpur, Maharashtra - Environment Clearance – reg.

Sir,

This is with reference to letter No. 43011/105/2007-CPAM dated 23.08.2007 of Ministry of Coal forwarding the application for Terms of Reference (TOR) and this Ministry's letter dated 17.12.2007 granting TOR to the aforesaid project and subsequent letter No. WCL/ENV./HQ/9-G/156 dated 21.04.2010 of M/s WCL forwarding the application for environmental clearance and letter dated 30.09.2010 on the above-mentioned subject. The Ministry of Environment and Forests has considered your application. The proposal is for **opening a new Gokul Opencast Coal mine Project of 1 MTPA capacity in a total lease area of 767.17 ha**. There are no ecologically sensitive areas such as National Park, WL Sanctuary or Protected Area found within the core zone or 15km buffer zone. The main agriculture crops in the area are cotton and red chilli. No endangered flora and fauna have been reported in the study area. Out of total ML area of 767.61 ha, 712.61 ha is agricultural land, 42.29 ha is Govt. waste land and 12.27 ha is forestland (zudpi jungle). Forestry clearance has been applied for. The project involves changes in the existing topography by diversion of two roads of 3 km and 3.5 km length, diversion of one HTL and modification of surface drainage by diversion of a nallah of 3 km and a canal of 2.5 km flowing through the ML. An embankment is proposed between Nand Nalla and quarry boundary.

Of the total ML area, 291.21 ha is quarry area, 123.90 ha is for ext. OB dump, 10 ha is for infrastructure including a CHP, 39.00 ha is area for diversion of road, 90.53 ha is for blasting zone, 5 ha is for colony, 77.92 ha area is for future expansion of quarry and 129.61ha area is required for rationalisation of boundaries. Mining method is opencast by semi-mechanised method using shovel and dumper. Ultimate working depth is 100m bgl. Grade of coal is 'E'. Transportation of 3030 TPD of coal from mine to Umrer Railway Siding would be by tarpaulin covered trucks covering a distance of 25km. Groundwater table in the study area is in the range of 2.45-11.65m bgl during pre-monsoon and in the range of 1.00-7.05m bgl during post-monsoon. Peak Water requirement is 750m³/day which would be met from mine sump water. Average mine water discharge is 3196 m³/day (average). The total estimated OB generation over the life of mine is 135.84 Mm³ of which 94.09 Mm³ would be backfilled and the balance 41.75 Mm³ of OB would be stored in one external OB dump of a max. height of 60m in an area of 123.90 ha. A total of 480.94 ha area would be developed with plantation at the post mining

stage. Backfilling would begin from the 10th year onwards. At the post mining stage a void of 40 ha would be left as a water body. The project involves R&R of 365 PAFs of Piraya village (1343 PAPs) of Piraya village. Life of the project is 17 years. A budgetary provision of Rs 55 lakhs has been made for environmental measures. Public Hearing held on 11.11.2008. Project has been approved by M/s WCL on 22.03.2006. Capital cost of project is Rs 79.8255 Crores.

2. The Ministry of Environment & forests hereby accords environmental clearance for the above-mentioned **Gokul OCP of M/s Western Coalfields Limited for a rated capacity of 1 MTPA coal production in total ML area of 767.17 ha** 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:

A. Specific Conditions

- (i) No mining shall be undertaken in the 12.27 ha of forestland without prior forestry clearance under the provisions of the FC Act, 1980.
- (ii) A detailed Area Drainage Study of the core zone Mining shall be undertaken for diversion of the nalla/Canal flowing within the ML and for their realignment to their original course at the mine boundary. Mining shall be carried out as per statuette from the streams/nallahs flowing within the lease and maintaining a safe distance from the diverted nallah along the lease boundary. Approval of the Flood and Irrigation Dept shall be taken prior to start of mining operations for the diversion and for the construction of the embankment based on peak flow.
- (iii) No washery shall be established within the ML without prior environmental clearances from this Ministry.
- (iv) Topsoil shall be stacked properly with proper slope at earmarked site(s) and shall not be kept active and shall be used within a year of its generation for reclamation and development of green belt.
- (v) An estimated 41.75 Mm³ of OB shall be stacked at the earmarked one external OB dump of 30.75 ha, of a max. height of 60m. The balance 94.09 Mm³ of OB shall be backfilled into the quarry area of 95 ha. 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.
- (vi) 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.
- (vii) 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 provided adequate retention period to allow proper settling of silt material.
- (viii) 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.



- (ix) Mineral transportation from mine to Umrer Railway Siding by road shall be by use of trucks of a minimum capacity of 20-T. All internal roads and approach shall be black topped. A 3-tier Green belt shall be developed on both sides of the roads. Green belt shall be developed at the Railway siding.
- (x) High efficiency water sprinkling system provided to check fugitive emissions at the transfer points, haulage roads, etc shall be provided for crushing/loading operations for dust control at the CHP.
- (xi) Drills shall be wet operated only.
- (xii) Controlled blasting shall be practiced with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.
- (xiii) 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. 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.
- (xiv) No groundwater (bore well) shall be used for mining operations. Additional water if any shall be from mine pit water or from harvesting of rainwater. Rainwater harvesting structures including check dams for recharge of ground water shall be erected within and around the ML, in case monitoring of groundwater indicated a declining trend.
- (xv) The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- (xvi) Sewage treatment plant of adequate capacity shall be installed in the colony. ETP shall also be provided for workshop and CHP wastewater. Treated wastewater meeting prescribed norms only shall be permitted to be discharged in to the natural water courses.
- (xvii) The total area that shall be brought under plantation at the time of mine closure shall not be less than 480.94ha and shall include reclaimed backfilled area (200ha), external OB dump area (123.90 ha), 5 ha roads, colony (1 ha), infrastructure (3 ha), blasting zone (61.83 ha) and area for rationalisation (35 ha) by planting native species found in the study area during pre-mining phase in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha.
- (xviii) A Progressive Mine Closure Plan shall be implemented by reclamation of 251.21 ha of total quarry area of 291.21 ha which is proposed to be backfilled and afforested by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha. The balance 40 ha of decoaled void is to be left as water body shall be gently sloped along the upper benches and stabilised with grass and plantation.
- (xix) Besides carrying out regular periodic health check up of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health check up for occupational diseases and hearing impairment, if any, through an

agency such as NIOH, Ahmadabad within a period of one year and the results reported to this Ministry and to DGMS.

- (xx) A detailed project specific R&R Plan shall be prepared for Piraya village comprising about 365 PAFs and land losers and implemented in consultation with the stakeholders and local administration. R&R shall not be inferior to that in the National R&R Policy and shall be completed within the agreed time-frame. R&R shall include specific income generation schemes. A Corpus Fund shall be created for maintenance of the R&R colony. Annuities shall be provided for the vulnerable sections of the displaced population. Alternate livelihood schemes shall be implemented for the persons not being absorbed for employment.
- (xxi) A detailed CSR Plan shall also be prepared for and in consultation with the local communities. CSR should be for a minimal Rs.5T/Coal /year or 2.5% of the retain profit shall be implemented which is to be adjusted for depreciation in the value of the rupee over the life of the project. The activities undertaken for the specific villages adopted under CSR shall be displayed on the company website and updated at least once a year.
- (xxii) 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 Bhopal.
- (xxiii) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.


B. General Conditions

- (i) No change in 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 particulates 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. Vehicles used for transportation of 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 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, PM_{2.5}, SO₂ and NO_x (ambient) 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.

- (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. Secretary, Department of Environment, Government of Maharashtra, 15th Floor, New Admn. Bldg., Madam Cama Road, MUMBAI - 400032..
3. Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, E-2/240 Arear Colony, Bhopal - 462016.
4. Chairman, Maharashtra State Pollution Control Board, Kalapataru Point, 3rd & 4th Floors, Sion, Matunga Scheme Road No. 8, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai - 400002.
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. Dr.R.K.Garg, Advisor, M/s Coal India Ltd., SCOPE Minar, New Delhi.
8. District Collector, Chandrapur, Government of Maharashtra.
9. EI Division, Ministry of Environment & Forests, New Delhi.
10. Monitoring File 10. Guard File 11. Record File.