

No.J-11015/452/2012-IA-II (M)
Government of India
Ministry of Environment, Forest and Climate Change
IA-II (Coal Mining) Division

Indira Paryavaran Bhawan,
Jorbagh Road, N Delhi-3
Dated: 30th November, 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 New Sethia OCP from 0.20 MTPA to 0.50 MTPA of M/s Western Coalfields Limited with increase in mine lease area from 91.503 ha to 144.453 ha located in District Chindwara (Madhya Pradesh) - For amendment in EC-reg

Sir,

This has reference to your letter No WCL/HQ/Env/8-L&2-C/723-725 dated 28.08.2017 along with the online proposal No.IA/MP/CMIN/26250/2012 subsequent letters dated 20.10.2017 and 27.10.2017 on the above mentioned subject.

2. The Ministry of Environment, Forest and Climate Change has considered the proposal for amendment in environmental clearance granted vide letter No.J-11015/452/2012-IA.II(M) dated 21st February, 2017 in favour of M/s Western Coalfields Limited, to the expansion project of New Sethia Opencast Coal Mine from 0.20 MTPA to 0.50 MTPA with increase in mine lease area from 91.503 ha to 144.453 ha.

3. The proposal was considered by the Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Projects in its 21st meeting held on 27th October, 2017. The EAC, after deliberations, has recommended for amendment in the environmental clearance dated 21st February, 2017 for the above project, in respect of certain specific and general conditions stipulated therein, to be deleted/replaced with and now read as under:-

Specific Condition

(ix) The land use pattern at the end of mining operation shall be in conformity with the post mining land-use plan, which remains an integral part of the approved mining plan and the EIA/EMP submitted to this Ministry.

General Conditions

a) Mining

(iv) A progressive Mine Closure Plan duly approved by the Ministry of Coal / Company Board, as applicable should strictly be complied with.



(b) Land Reclamation

(iii) Final mine void depth should in conformity with the post mining land-use plan, which remains an integral part of the approved mining plan and the EIA/EMP submitted to this Ministry.

(v) Plantation shall be raised around the mining lease on the 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 in conformity with the post mining land-use plan, which remains an integral part of the approved mining plan and the EIA/EMP submitted to this Ministry.

(c) Emission, Effluents & Waste Disposal

(x) To check run off and siltation, retaining wall of adequate dimension to be constructed at the toe of OB dumps and OB benches, as applicable, based on rainfall data.

(e) Occupational Health & Safety

(iv) Provision shall be made for housing of construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical care, health care, creche etc as applicable to the project. The housing may be in the form of temporary structures to be removed after completion of the project, as applicable..

(f) Biodiversity

(i) The project proponent shall take all precautionary measures during mining operations 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 the Action plan, as applicable, 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

(iv) The project proponent shall make necessary alternative arrangements, wherever required, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent should implement the directions of 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 as applicable.


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

(i) Monitoring of Ambient Air Quality to be carried out based on the Coal Industry Standards notified vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board,.....




4. Based on the recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords approval to the proposed amendments in the environmental clearance dated 21st February, 2017 for the project 'Expansion of New Sethia Opencast Coal Mine' from 0.20 MTPA to 0.50 MTPA of M/s Western Coalfields Limited with increase in mine lease area from 91.503 ha to 144.453 ha located in District Chhindwara (Madhya Pradesh), in respect of specific and general conditions as mentioned in para 3 above.

5. All other terms and conditions stipulated in the said Environmental Clearance dated 21st February, 2017 shall remain unchanged.


30/11/2017
(S K Srivastava)
Scientist E

Copy to:

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. The APCCF, MOEF&CC, Regional Office (EZ), E-5 Arera Colony, Bhopal - 462 016
3. The Secretary, Department of Environment & Forests, Government of Madhya Pradesh, Secretariat, Bhopal
4. The Member Secretary, Madhya Pradesh State Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal - 462 016
5. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
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, Chhindwara, Government of Madhya Pradesh
8. Monitoring File 9. Guard File 10. Record File 11. Notice Board


30/11/2017
(S K Srivastava)
Scientist E

No.J-11015/452/2007-IA.II(M)
Government of India
Ministry of Environment, Forest & Climate Change
IA-II (Coal Mining) Division

Indira Paryavaran Bhawan,
Jorbagh Road, N Delhi-3
Dated: 21st 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 New Sethia OCP from 0.20 MTPA to 0.50 MTPA of M/s Western Coalfields Limited with increase in mine lease area from 91.503 ha to 144.453 ha located in District Chindwara (Madhya Pradesh) - Environmental Clearance - reg.

Sir,

This is with reference to your application No.WCL/ENV/HQ/8-L/ 340 dated 31.12.2015 along with the online proposal No. IA/MH/CMIN/26250/2012 dated 31.12.2015 and subsequent letter dated 05.02.2016, 08.02.2016, 10.02.2016, 15.02.2016, 08.03.2016, 17.03.2016, 21.07.2016, 28.09.2016, 20.10.2016, 22.10.2016, 13.12.2016, 19.12.2016 & 27.12.2016 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 the expansion of **New Sethia Opencast Coal Mine project** from 0.20 MTPA to 0.50 MTPA of M/s Western Coalfields Limited with increase in mine lease area from 91.503 ha to 144.453 ha located in District Chindwara (Madhya Pradesh).

3. The proposal was considered by the Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Projects in its 51st meeting held on 5th February, 2016, 53rd meeting held on 17th-18th March, 2016 and then 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. TOR was accorded to the proposal vide letter No.J-11015/452/2013-IA.II(M) dated 25th February, 2014. Public hearing was conducted on 17th October, 2014 at Tehsil Parasia, District Chindwara (MP).
- ii. The earlier EC was accorded to the project vide No.J-11015/452/2007-IA.II(M) dated 19th February, 2008 for a capacity of 0.20 MTPA in an area of 91.503 ha.
- iii. The latitude and longitude of the project are 22°12'31" to 22°13'19" N and 78°50'15" to 78°51'46" E respectively.
- iv. Joint Venture: There is no Joint venture.
- v. Coal Linkage: Sarni Thermal Power Plant of MP Electricity Board.
- vi. Employment generated / to be generated: Direct Manpower for the proposal of expansion is 67. In addition with the proposed expansion, no. of indirect employment opportunities will also be created.
- vii. Benefits of the project: The Proposed expansion will bridge the gap between demand & availability of coal to the extent of the peak capacity.



viii. The land usage of the project will be as follows:

Pre-Mining:

Sl. No.	Particular	Land (ha)
1.	Agricultural land	50.579
2.	Waste Land	40.924
3.	Already acquired land of company	52.95
	Total	144.453

Post- Mining:

Sl. No.	Land use	Land (ha)
1.	Plantation	43.75
2.	Water body	66.73
3.	Public Use	4.73
4.	Undisturbed/Reclaimed	29.243
5.	Total	144.453

- ix. The total geological reserve is 2.07MT. The mineable reserve 1.88 MT, extractable reserve is 1.88 MT. The per cent of extraction would be 87%.
- x. The coal grade is G7/G8. The stripping ratio is 1:5.26 cum/tonne. The average Gradient is 1 in 10 to 1 in 12. There will be five seams with thickness ranging.

Description	Thickness range (m)
Upper group of seams	
Seam - I	2.33 – 6.21
Parting	2.70 – 6.28
Seam -II	1.36 – 2.70
Parting	1.76 – 7.16
Seam - III	0.81 – 2.00
Major parting between two groups of seams	16 - 20
Lower group of seams	
Seam - IV	0.72 - 2.93
Parting	13.53 - 22.76
Seam - V	0.52 – 2.46

- xi. The total estimated water requirement is 270m³/day. The level of ground water ranges from 0.10 m to 14 m bgl.
- xii. The Method of mining would be Opencast with Shovel-Dumper Combination.
- xiii. There is no external OB dump and two internal dumps with Quantity of 9.88 Mm³ in an area of 21.60 ha.
- xiv. The final mine void would be in 66.73 Ha with depth 97 m. and the Total quarry area is 74.33 ha. Backfilled quarry area of 21.60Ha shall be reclaimed with plantation. A void of 66.73 ha with depth 97 m which is proposed to be converted into a water body.
- xv. The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.
- xvi. The life of mine is 5 years (balance).
- xvii. Transportation: Coal transportation in pit by Dumpers from in pit to pit head coal handling plant, Surface to Siding by Tippers to Pre-weigh Bin and loading at siding by Pay loaders.
- xviii. There is no R & R involved. There are no PAFs.
- xix. Cost: Total capital cost of the project is Rs. 2.22 Crores (additional capital). CSR Cost as per extant CSR Policy 2% of last three years average net profit or Rs 2/ton of company production, whichever is higher is used for CSR activity. R&R Cost Nil. Environmental

Management Cost Rs. 50 lakhs has been envisaged for Environmental protection measures.

- xx. Water body: Pench river passes at a distance of 50 mtrs from the mine site.
- xxi. Approvals: Ground water clearance not applicable as it is not falling in critical area as per CGWA, Board's approval obtained on 28.05.2012. Mining plan has been approved on 28.05.2012. Mine closure plan is an integral part of mining plan.
- xxii. Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
- xxiii. Forestry issues: no forest area involved.
- xxiv. Total afforestation plan shall be implemented covering an area of 43.75 ha at the end of mining. Green Belt over an area of 15 ha. Density of tree plantation 2500 trees/ha of plants.
- xxv. There are no court cases/violation pending with the project proponent.
- xxvi. Public Hearing was held on 17.10.2014 at Project site of New Sethia OC, Chhindwara Distt, MP The issues raised in the PH includes drinking water, water pollution, air pollution control, plantation and disposal of OB, water sprinkling & CSR works.
- xxvii. Certified EC Compliance Report: The Regional Office of MoEF&CC at Bhopal has carried out the site inspection on 22/23 August, 2016 to verify the status of compliance of EC conditions granted for New Sethia OCP 0.20 MTPA in mine lease area 91.503 ha of M/s Western Coalfields Limited in District Chindwara (Madhya Pradesh). The monitoring report was forwarded to this Ministry vide their letter No.3-16/208(Env)/375 dated 18th October, 2016, which was deliberated in the EAC meeting. The project proponent presented the action taken on each of the observations made by RO during the site visit.
- xxviii. The mine is having EC for 0.20 MTPA with ML area of 91.503 ha and also CTO (both under Air and Water Act) valid up to 18.02.2017.
- xxix. Presently, the subject mine cannot be reopened because :- The proposal is for working remaining reserves in seams (I, II, III IV, VA & VB2) through opencast method limiting to quarry area of 74.33 ha only in existing New Sethia OC mine, which involves re-handling of 2.14 Mm3 of OB taking into consideration the following:-
 - 1. No generation of external OB dump.
 - 2. No dumping in the existing area.
 - 3. Dumping in the already de-coaled void of erstwhile Pench East OC patch which is beyond the EC area (Mine take area).
- xxx. OB management has been planned to prevent further land degradation in the following manner:
 - i. No damage to fresh land for accommodation of external OB dumps.
 - ii. OB and Coal winning will be limited to 91.503 ha., which has already been approved in existing EC.
 - iii. Re-use of existing acquired land.
 - iv. No acquisition of land which ensures no issues related to land and house oustees.
 - v. No adverse impact on land.
 - vi. Further this OB management will help in reclamation of already de-coaled land.
- xxxi. The land of erstwhile worked out Pench East OC patch to be annexed to the existing EC approved mine take area for accommodating re-handled OB. The additional land to be annexed is 52.950 ha thus making the total land involvement of 144.453 ha.
 - 1. Mine take Area - 91.503 ha
 - 2. Additional land to be annexed for OB - 52.950 ha
 - 3. Total - 144.453 ha
- xxxii. This additional land is already in possession of the company and ensures no issues related R&R.

4. The EAC, after detailed deliberations on the proposal in its meeting held on 27th December, 2016, has recommended the proposal for grant of Environmental Clearance. The Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to the expansion of **New Sethia Opencast Coal Mine project from 0.20 MTPA to 0.50 MTPA of M/s Western Coalfields Limited with increase in mine lease area from 91.503 ha to 144.453 ha located in District Chindwara (Madhya Pradesh)** under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & 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 obtain Consent to Establish for the proposed capacity of 0.50 MTPA before enhancing the production capacity.
- (iv) Transportation of coal should be carried out by covered trucks. Adequate mitigative measures shall 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 shall be ensured.
- (vi) *Controlled blasting should be adopted to control ground vibration and fly rocks.*
- (vii) A progressive afforestation plan shall be implemented covering an area of **43.75 Ha** at the end of mining, which includes reclaimed External OB dump area (**6 Ha**), Internal OB dump area (**21.60 Ha**) and Green belt (**15 Ha**) 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 **9.88 Mm³** of OB will be generated during the entire life of the mine. There will be no external OB Dump. **9.88 Mm³** of OB will be dumped in **two** internal OB dump covering an area of **21.60 ha**. The height of internal OB dump will be upto ground level. 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 **74.33 ha**, the backfilled quarry area of **21.60 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.

8th

- (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.

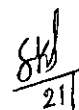
(viii) The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a 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-11015/452/2007-IA.II (M) dated 19th February, 2008 for a capacity of 0.20 MTPA in an area of 91.503 ha.


21/2/2017
(S. K. Srivastava)
Scientist E

Copy to:

1. The Secretary, Ministry of Coal, New Delhi.
2. The Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, E-2/240 Arera Colony, Bhopal – 462016.
3. The Secretary, Department of Environment & Forests, Government of Madhya Pradesh, Secretariat, Bhopal.
4. The Member Secretary, Madhya Pradesh State Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal – 462016.
5. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -110032.
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, **Chindwara**, Government of Madhya Pradesh.
8. Monitoring File 9. Guard File 10. Record File 11. Notice Board


21/2/2017
(S. K. Srivastava)
Scientist E

No.J-11015/452/2007-IA.II(M)
Government of India
Ministry of Environment & Forests

NS-1

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

Dated: 19th February 2008

To
Director (Tech.)
M/s Western Coalfields Ltd.,
Coal Estate, Civil Lines,
Nagpur- 440001.

Sub: New Sethia Opencast Coal Mine Project (0.20 MTPA) of M/s Western Coalfields Ltd. (WCL), located in village Sethia, Tehsil Parasia, District Chhindwara, Madhya Pradesh - Environmental clearance - reg.

Sir,

This has reference to letter No. 43011/72/2007-CPAM dated 30.04.2007 forwarding your application and your letters dated 24.12.2007 and 16.02.2008 on the above-mentioned subject. The Ministry of Environment & Forests has considered your application. It has been noted that the project is for expansion in production of coal in the existing New Sethia Opencast Coalmine Project to 0.2 million tonnes per annum(MTPA). The total lease area is 91.503 ha of which 50.579 ha is agricultural land and 40.924 ha is wasteland. No forestland is involved. There are no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 10 km buffer zone. Of the total lease area, area for excavation is 67.077 ha, 0.5 ha is area for storage of topsoil, 8.50 ha is for OB dumps, 0.5 ha is mineral storage area, 0.431 ha is area for roads, 1.95 ha is danger zone, 0.65 ha is area for embankment, and 2.295 ha is area for rationalisation. Total area of the township is 15.30 ha with 1000 dwelling units. Part of the township to an extent of 9.30 ha falls within the lease. River Rench flows adjacent to the mine lease at a distance of 50m. The project involves modification of the natural drainage by construction of an embankment. Project does involve R&R. Mining will be opencast by semi-mechanised method. Rated capacity of the mine is 0.20 MTPA of coal production. Mineral transportation of 607 TPD of coal is by road to railway siding covering a distance of 11 km. Ultimate working depth of the mine is 45m below ground level (bgl). Present working depth is 40m bgl. Water table is in the range of 1.50 m - 14.0 m bgl during pre-monsoon season and near surface-10m bgl during post-monsoon. Mining has intersected water table. Peak water requirement is 435 m³/d, which will be met from mine pit water. An estimated 20.95 Mm³ of OB will be generated over the life of mine of which 2.15 Mm³ would be generated in the balance life of mine. Almost the entire OB would be backfilled leaving a void of 15 ha which would be converted into a water body. Public Hearing was held on 24.11.2005. NOC has been obtained on 10.02.2006. Balance life of the mine at the rated capacity is 2 years. The project has been approved by M/s WCL on 16.12.2005. The capital cost of the project is Rs. 1224 lakhs.

2. The Ministry of Environment & forests hereby accords environmental clearance for the above-mentioned New Sethia Opencast Coal Mine Project of M/s WCL for production of coal of 0.20 MTPA rated capacity under the provisions of the Environmental Impact Assessment Notification, 2006 subject to the compliance of the terms and conditions mentioned below:

A. Specific Conditions

- (i) No external dumping of OB. The entire OB being generated in the balance life of mine shall be backfilled.
- (ii) Reclamation, monitoring and management of the existing external OB dumpsite should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional office located at Bhopal on yearly basis.
- (iii) 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 provided adequate retention period to allow proper settling of silt material.
- (iv) 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.
- (v) Mining shall be carried out as per statuette at a safe distance from the Pench River flowing adjacent to the lease boundary.
- (vi) The road for coal transport shall be black topped and avenue trees developed on both sides.
- (vii) Drills should be wet operated or with dust extractors.
- (viii) 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.
- (ix) Area brought under afforestation shall be not less than 61.727 ha and include, external OB dump (9.15 ha), backfilled area (52.077ha), along ML boundary, along roads and area in township located within and outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.
- (x) A Progressive Mine Closure Plan shall be implemented by reclamation of decoaled quarry area and afforestation by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.
- (xi) Regular monitoring of groundwater level and quality should be carried out by establishing a network of exiting wells and construction of new peizometers. The monitoring for quantity should be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected should be submitted to the Ministry of

Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.

- (xii) Digital processing of the entire lease area using remote sensing technique should be done regularly once in 3 years for monitoring land use pattern and report submitted to MOEF and its Regional office at Bhopal.
- (xiii) The detailed Final Mine Closure Plan along with details of Corpus Fund should be submitted within six months to the to the Ministry of Environment & Forests Regional Office, Bhopal.

B. General Conditions

- (i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and Forests.
- (ii) No change in the calendar plan including excavation, quantum of mineral coal and waste should be made.
- (iii) Four ambient air quality monitoring stations should be established in the core zone as well as in the buffer zone for SPM, RPM, SO₂ and NO_x monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.
- (iv) Fugitive dust emissions (SPM and RPM) from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading and unloading) points should be provided and properly maintained.
- (v) Data on ambient air quality (SPM, RPM, SO₂ and NO_x) should be regularly submitted to the Ministry including its Regional Office at Bhopal and to the State Pollution Control Board and the Central Pollution Control Board once in six months.
- (vi) Adequate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc should be provided with ear plugs/muffs.
- (vii) Industrial wastewater (workshop and wastewater from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time before discharge. Oil and grease trap should be installed before discharge of workshop effluents.
- (viii) Vehicular emissions should be kept under control and regularly monitored. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.
- (ix) Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.

- (x) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.

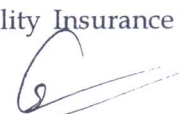
Occupational health surveillance programme of the workers should be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed.

- (xi) A separate environmental management cell with suitable qualified personnel should be set up under the control of a Senior Executive, who will report directly to the Head of the company.
- (xii) The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year-wise expenditure should be reported to this Ministry and its Regional Office at Bhopal.
- (xiii) The Regional Office of this Ministry located at Bhopal shall monitor compliance of 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.
- (xiv) A copy of the will be marked to concerned Panchayat/ local NGO, if any, from whom any suggestion/representation has been received while processing the proposal.
- (xv) State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.
- (xvi) The Project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in 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>.

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.



(Dr.T.Chandini)
Director

Copy to:

1. Secretary, Ministry of Coal, Shastri Bhawan, New Delhi.

2. Secretary, Department of Environment & Forests, Government of Madhya Pradesh, Secretariat, Bhopal.
3. Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, E-2/240 Aera Colony, Bhopal - 462016.
4. Chairman, Madhya Pradesh State Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal - 462016.
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. Shri M.K. Shukla, CGM, Coal India Limited, SCOPE Minar, Core-I, 4th Floor, Vikas Marg, Laxminagar, New Delhi.
8. District Collector, Chindwara, Government of Madhya Pradesh, New Delhi.
9. Monitoring File 10. Guard File 11. Record File