



Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The GM (Mining) Environment
Western Coalfields Limited

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/MH/CMIN/240112/2021 dated 27 Nov 2021. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|--|
| 1. EC Identification No. | EC22A042MH178548 |
| 2. File No. | J-11015/299/2010-IA-II(M) |
| 3. Project Type | Expansion7 |
| 4. Category | A |
| 5. Project/Activity including Schedule No. | 1(a) Mining of minerals |
| 6. Name of Project | Expansion of Mugoli Nirguda Extn Deep OC for increase in production from 4.375 MTPA to 6.125 MTPA within land area of 1267.55 Ha located in Mugoli Village Wani Teh Yavatmal Dist MH |
| 7. Name of Company/Organization | Western Coalfields Limited |
| 8. Location of Project | Maharashtra |
| 9. TOR Date | N/A |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 12/01/2022

(e-signed)
Lalit Bokolia
Scientist F
IA - (Coal Mining sector)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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F No. J-11015/299/2010-IA.II(M)

Government of India
Ministry of Environment, Forest and Climate Change
Impact Assessment Division

Indira Paryavaran Bhawan,
Jorbagh Road, N Delhi - 3
Email: lk.bokolia@nic.in Tel: 01124695363

Dated: 11th January, 2022

To

The General Manager (Environment)
M/s Western Coalfields Ltd,
Coal Estate, Civil Lines, Nagpur (MS)
Maharashtra - 440001 Email: wclenv@yahoo.in

Sub: Expansion of Mugoli Nirguda Extension Deep OC Mine project from 4.375 MTPA to 5.25 MTPA within mine lease area of 1267.55 ha of M/s Western Coalfields Limited located in Village Mugoli, Tehsil Wani, District Yavatmal (Maharashtra) - For Environmental Clearance (as per Ministry's O.M 15.09.2017.)- reg

Sir,

This has reference to your online proposal No. **IA/MH/CMIN/240112/2021** dated 27th November, 2021 for grant of Environmental Clearance to the above project.

2. The Ministry of Environment, Forest and Climate Change has considered the application. It is noted that the proposal is for grant of Environmental Clearance Expansion of Mugoli Nirguda Extension Deep OC Mine project from 4.375 MTPA to 6.125 MTPA within mine lease area of 1267.55 ha of M/s Western Coalfields Limited located in Village Mugoli, Tehsil Wani, District Yavatmal (Maharashtra)

The project/activity is covered under category 'A' of item 1(a) 'Mining of Minerals' the Schedule to the EIA Notification, 2006

3. The proposal was considered by the sectoral Expert Appraisal Committee (EAC) in its 23rd EAC meeting held during 06th December, 2021. 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 block is covered in the Survey of India Toposheet No. 56 M/1. The mine lease area of the project under consideration is bounded by Latitude 19° 51' 23.48" N and 19° 54' 23.90" N and Longitude 79° 5' 48.31" E and 79° 8' 5.09" E.
- (ii) Coal linkage of the project is Basket Linkage for various consumers.
- (iii) There is no Joint venture involved.
- (iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF & CC's vide its OM dated 13th January, 2010 has imposed moratorium on grant of environment clearance.



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- (v) Employment generation: Manpower requirement in existing proposal is 844 nos. In addition to this, temporary employment in the operation will be around 200 nos. (approx.)
- (vi) The project is beneficial in terms of the following
- Environmental - Conservation of Coal. It will also lead to positive environmental impact like green cover, mine water utilization, etc.
 - Financial - Substantial percentage of population is dependent on mining industry directly or indirectly. Because of this project some of the local population may be direct employment but a substantial impact will be on creation of indirect job opportunities and employment.
 - Social - Project will lead to development of roads, ancillary industries, improvement of social & living standard.
- (vii) Earlier, Environment Clearance to the project i.e. Mungoli Nirguda Extension Deep OC was obtained under EIA Notification, 2006 vide Ministry's letter no. J-11015/299/2010-IA.II(M) dated 26th February, 2020 for a production capacity of 4.375 MTPA and total leasehold area of 1317.55 Ha.
- (viii) Present application is for grant of EC for increase in production capacity from 4.375 MTPA to 6.125 MTPA with land area of 1267.55 ha (with existing EC area of 1367.55 Ha) as per clause 7 (ii) of EIA Notification, 2006 and as per MOEF & CC O.M dated 15.09.2017, as such TOR is not applicable.
- (ix) Total mining lease area is 1267.55 Ha.
- (x) The land usage pattern of the project is as follows:
- Pre-mining land use details (Area in Ha)
 - Agricultural Land – 116.30 ha Govt. Land – 31.88 ha, Forest land – 0.00 Others- 1119.37 (Already acquired by WCL) Total land – 1267.55 ha
 - Post Mining Landuse:

S. No.	Land use	Land use (ha)				
		Plantation	Water Body	Public Use	Undisturbed	Total
1	External OB Dump	112.89	0	82.00	0	194.89
2	Excavation	100.00	289.35	124.12	0	513.47
3	Roads	11.20	0	18.80	0	30.00
4	Built-up Area (Infrastructure)	20.00	0	65.00	0	85.00
5	*Green Belt	65.00	0	0	0	65.00
6	Undisturbed Area (Including safety)	100.00	0	0	182.19	282.19
7	Embankment around quarry	20.70	0	49.30	0	70.00
8	Outside ML Area (land for Village Rehabilitation)	2.00	0	10.00	0	12.00
9	Colony Land	3.00	0	12.00	0	15.00
	Total Area	434.79	289.35	361.22	182.19	1267.55

- (xi) Total geological reserves is 106.558 MT with mineable reserves of 73.13 MT. Out of mineable reserves of 73.13 MT, 32.92 MT are available for extraction. Percent of extraction is 68.63 %.
- (xii) One seam of intermittent band with thickness ranging from 11.16 m to 17.48 m (average - 15.20m) in four sections A, B, C & D are workable. Grade of Coal is G10. Stripping ratio 1: 6.63 m³/t.
- (xiii) Shovel-Dumper combination is being practiced in existing Mugoli Nirguda Extension Deep OC for extraction of coal as well as removal of parting and Top OB along with Dragline. In the present proposal, Dragline will be deployed only for 1st year. Part Top OB and parting OB will be by departmental HEMM for 1st year. From second year onwards, parting OB and coal will be by Hiring of HEMM. Balance Top OB, parting OB and Coal will be done contractually from 2nd year. Coal extraction will be by deployment of Surface Miner.
- (xiv) Life of mine : 6 years.
- (xv) The project has 05 nos. of external OB dumps in an area of 112.89 ha with 90 m height and
- (xvi) 110.29 Mm³ (including Embankment of 5.32 Mm³) of OB & 2 nos. of internal OB dumps in an area of 100.0 ha with 271.99 Mm³ of OB, is envisaged in the project.
- (xvii) Total quarry area is 513.47 ha. Backfilled quarry area of 224.12 ha shall be reclaimed with plantation. Final mine void will be created in an area of 289.35 ha with maximum depth of 150 m will be converted into a water body.
- (xviii) Coal transportation by road will be eliminated (around 90%) due to laying of railway siding with Coal handling Plant and Silo (8.0 MTPA capacity) within mine lease area. Action for this has already been initiated. However, for internal transportation, Coal transportation road of length 1.50 km to transport coal by 60 T Dumpers has been envisaged. Till the construction of proposed railway siding within the mine lease area, coal will continue to be transported to Ghughus Railway Siding from mine through covered tippers/trucks, located at a distance of approx. 8 kms. The coal will be transported to Thermal power plants of MAHAGENCO and to Basket linkage Consumers from Silo.
- (xix) Reclamation Plan in an area of 434.79 Ha includes external OB dumps, internal dumps, along road, township, around infrastructure and embankments., comprising of 112.89 ha of external dump, 100.0 ha of internal dump and 65.0 ha of green belt. In addition to this, an area of 156.90 Ha (Roads -11.20 Ha, Built Up area (infrastructure) – 20 ha, Undisturbed Area – 100 ha, Embankment around Quarry- 20.70 Ha, Outside ML Area – 02 Ha, Colony Land – 03 Ha), has also been proposed for reclamation.
- (xx) No forest land involved in the project. Area of 100.00 ha on external dump and 196.90 Ha of undisturbed area will be utilized for plantation.
- (xxi) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones, within 10 km boundary of the project.
- (xxii) The ground water level has been reported to be varying between 4.85 to 11.60 m during pre-monsoon and between 4.90 to 6.10 m during post-monsoon (core zone). Water requirements are 362 KLD (Domestic Demand – Colony requirement) & 780 KLD (Industrial Demand – Dust Suppression, firefighting, etc.).
- (xxiii) NOC from CGWA for ground water abstraction / dewatering has been obtained via application no. CGWA / NOC / MIN / ORIG / 2020 / 7435 valid upto 24.02.2022.
- (xxiv) Environment Clearance has been secured for Mugoli Nirguda Extension Deep OC for increase in production capacity from 4.0 MTPA to 4.375 MTPA with increase in land area

from 818.05 MTPA to 1317.55 ha. vide letter no. J-11015/229/2010-IA-II (M) dated 26.02.2021.

- (xxv) During the process of aforesaid EC, Public hearing has been carried out on 12.02.2019 at Manoranjan Kendra, Kailash Nagar Colony, Wani Yavatmal Dist. Maharashtra, as per the provisions of EIA Notification, 2006. This Public Hearing was completed for 1317.55 ha area and proposed expansion is limited to existing area only. Present proposal is for increase in production capacity from 4.375 MTPA to 6.125 MTPA with land area of 1267.55 ha (with existing EC area of 1367.55 Ha) as per clause 7 (ii) of EIA notification 2006 & MoEF & CC O.M dated 15.09.2017. Thus there is no requirement of additional area for proposed expansion and Public Hearing has already been conducted for the total land area involved in the proposed expansion project as per EIA Notification, 2006.
- (xxvi) Wardha river and Nirguda nala are flowing along the northern boundary of the mine and Penganga river on the southern boundary. Present proposal does not involve diversion of any Nallah/River
- (xxvii) Baseline data for Ambient Air Quality has been generated during April to June'2021 (Pre Monsoon Season). Results are within prescribed limits.
- (xxviii) No court cases, violation cases are pending pertaining to environment.
- (xxix) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. No excess production of coal from the sanctioned capacity has been realized in the project.

- Details are as under:

Financial Year	Sanctioned Capacity as per EC (MTPA)	Actual Production (MTPA)	Excess Production Beyond the EC
2011-12	4.000	3.29	NIL
2012-13	4.000	3.29	NIL
2013-14	4.000	3.60	NIL
2014-15	4.000	4.00	NIL
2015-16	4.000	4.00	NIL
2016-17	4.000	3.22	NIL
2017-18	4.000	3.54	NIL
2018-19	4.000	3.78	NIL
2019-20	4.375	4.11	NIL
2020-21	4.375	4.31	NIL
2019-20	2.50	2.395	Nil
2020-21	2.50	1.683	Nil

- (xxx) The project involves 649 nos. of project affected families. R&R of the PAPs will be done as per provisions of R&R Policy of Coal India Limited.
- (xxxi) Total cost of the project is Rs Rs. 826.80 Crores (including WDV of Rs 176.78 Crores). Cost of production is Rs 1128.02 per tonne (at 85%), CSR cost is Two percent of the average net profit of the company for the three immediate preceding financial years or Rs. 2.00 per tonne of total consolidated coal production of CIL as a whole of previous year whichever is higher, R&R cost is Rs.67.34 crores. Environment Management Cost is Rs 740.0 Lakh (Capital Cost) & Rs. 6.00 per tonne (Revenue Cost).

(Capital Cost) & Rs. 6.00 per tonne (Revenue Cost).

(xxxii) Consent to operate (CTO) was obtained from the Maharashtra Pollution Control Board on 21.10.2021 and is valid till 31.03.2023.

(xxxiii) Certified Copy of EC Compliance report has been secured from Integrated Regional office, MoEF & CC, Nagpur vide letter no F.No EC-1017/RON/2019-NGP(Part.)/8872 dated 17th Nov'2021.

4. The sectoral Expert Appraisal Committee (EAC) in its 23rd EAC meeting held on 6th December, 2021, has recommended the project for grant of Environment Clearance (EC). Based on recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords approval for Environmental Clearance (EC) upto 20% Expansion of Mugoli Nirguda Extension Deep OC Mine project from **4.375 MTPA to 5.25 MTPA** within mine lease area of 1267.55 ha of M/s Western Coalfields Limited located in Village Mugoli, Tehsil Wani, District Yavamati (Maharashtra) based on Ministry's OM dated 15th September, 2017 and under the provision of clause 7(ii) of EIA Notification, 2006 and under the provisions of Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions for environmental safeguards:-

Specific Conditions

- (i) All previous Environmental Clearances dated 30th March, 2011 and 26th February, 2020 issued by Ministry for this project shall be applicable along with this conditions
- (ii) PP shall obtain No Objection Certificate from Central Ground Water Authority and Consent to Establish/Operate (for proposed expansion).
- (iii) PP shall apply for further expansion in capacity (if any) only after implementation of in-pit conveyor system and silo loading till railway system and accordingly no further expansion will be considered by EAC.
- (iv) PP shall submit a third party assessment of EC Compliance shall be undertaken once in three years through agency like ICFRI/ NEERI/IIT or any other expert agency identified by the Ministry to Ministry's Regional Office.
- (v) PP shall use only surface miners for the proposed expansion capacity
- (vi) PP shall transport coal by road only for two years from the date of issue of this letter and accordingly transportation through in-pit conveyor system and by silo loading at Railway siding should be installed (as proposed) within 2 years
- (vii) PP to install 1 more continuous ambient air quality monitoring stations at suitable locations preferably village side in consultation of SPCB. The real time data so generated shall be uploaded on company website and linked to website of CPCB/SPCB. In addition, data should also be displayed digitally at entry and exit gate of mine lease area for public display.
- (viii) PP to replace the existing water sprinkler within two years with Fog cannon mist sprayer as these sprinklers create mud puddles. Also 10 nos. of additional Fog cannon (mist sprayer) shall be installed to reduce the impact of air pollution at dust generating sources such as haul road, CHP within 1 year from the date of issue of EC letter.
- (ix) PP should Install Wind breaker/shield arrangement atleast of 10 mtrs all along the railway siding for reducing the dust propagation in upwind direction.

- (x) PP shall install sand/aggregate segregation plant from Overburden (OB) for suitable capacity to extract sand and construction aggregate within 2 years of issue of this letter.
- (xi) PP to conduct riverine ecosystem study of the Wardha and Penganga River from reputed Institutes and help state government in revitalization of the rivers as both are tributaries of Godavari River.
- (xii) PP needs to address the issues raised in public hearing and demands to local development with budgetary provision with time bound action plan.
- (xiii) Top soil should be stored separately at marked area and necessary vegetation shall be maintained to avoid any entrainment of dust.
- (xiv) Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles.
- (xv) 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 Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; 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.
- (xvi) Quality of polluted water generated from the operations which include COD and acid mine drainage and metal contamination shall be monitored along with TDS, DO, TSS. The monitored data shall be uploaded on the website of the company as well as displayed at the site in public domain.
- (xvii) PP to conduct need based assessment survey of the area to for in order to decide the activities to be carried under the CSR and to provide detail of the activity carried out with adequate budgetary provision and time bound action plan.
- (xviii) PP must provide safety measures and relief fund to the areas or nearby villages affected by the flood.
- (xix) PP shall develop 2 water harvesting pond near the villages of suitable area as suggested by Gram Panchayat within 1 year.
- (xx) PP to maintain the topped haul road properly to minimized the dust emission. PP to also develop pucca roads by seeking consent from the panchayat with widening of roads especially roads inter linking the villages within the study area of 10 km radius buffer zone.
- (xxi) PP to take action drive on removal of thorny bushes in consent with expert in the area where the villagers are facing problem as wild animals are attracted due to these thorny bushes.
- (xxii) Persons of nearby villages shall be given training on livelihood and skill development to make them employable with its proper records.
- (xxiii) PP shall conduct slope stability study and install slope stability radar monitoring to monitor slope movement at OB Dump

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- (xxiv) PP to plant 100,000 nos. of native trees with broad leaves along the villages (Borgaon, Takli, Chincholi, Kolgaon and Tilodhi villages) and 50,000 no of trees along the transportation route to prevent the effect of air pollution in 2 years. A proper Mechanism to be put in place for massive plantation by hiring independent expert agency in 2 years for proper survival of trees.
- (xxv) Persons of nearby villages shall be given training on livelihood and skill development to make them employable.
- (xxvi) PP to install solar lights along the road used for transportation of coal to avoid the accidents at night and also seek its maintenance. PP is asked to also identify the rural areas for installation of solar light with its maintenance within the study area of 10 km radius buffer zone within one year
- (xxvii) PP also to provide drinking water facilities like installation of RO with proper water supply pipe fittings to nearby rural areas and also to install hand pumps by seeking consent from panchayat of the villages located within the study area of 10 km radius buffer zone within two years
- (xxviii) PP to take proper care of health of R& R villages and a 24X 7 helpline call facility should be provided to such area and also to nearby villages for assisting any medical aid and ambulance facility
- (xxix) PP should conduct epidemiology study to (analysis of the distribution, patterns and determinants of health and disease conditions in defined populations).
- (xxx) PP must ensure an emergency action plan during pandemic in order to provide assistance to the nearby villages located within the 10 km radius buffer zone (If required)
- (xxxi) PP shall pay to farmers of agricultural land if there is any loss due to pollution/damange due to blasting activity found by concerned District Commissioner as per extent rules or norms
- (xxxii) 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 hour.
- (xxxiii) PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground. A dedicated team to oversee environment management shall be setup which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis. Any non- compliance or infringement should be reported to the concerned authority.
- (xxxiv) Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re- grassing the mining area and any other area which may

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have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent". The implementation report of the above said condition shall be sent to the Regional Office of the MoEF&CC.

4.1 The grant of environmental clearance is further subject to compliance of the Standard EC conditions as under:

(a) Statutory compliance

(i) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.

(ii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

(iii) The project proponent shall prepare a Site-Specific Conservation Plan / Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan/Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of Schedule-I species in the study area).

(iv) The project proponent shall obtain Consent to Establish/Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee prior to commencement of proposed expansion capacity.

(v) The project proponent shall obtain the necessary permission from the Central Ground Water Authority.

(vi) Solid/hazardous waste generated in the mines needs to be addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.

(b) Air quality monitoring and preservation

(i) Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely 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. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.

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(ii) The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.

(iii) Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun etc shall be carried out in critical areas prone to air pollution (with higher values of PM₁₀/PM_{2.5}) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.

(iv) The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.

(v) Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.

(vi) Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.

(vii) Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.

(c) Water quality monitoring and preservation

(i) The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.

(ii) The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.11 (M) dated 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.

(iii) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four

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times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year. and the data thus collected shall be sent regularly to MOEFCC/RO.

(iv) Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.

(v) Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.

(vi) Catch and/or garland drains and siltation ponds in adequate numbers and appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression and green belt development and other industrial use. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.

(vii) Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).

(viii) Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP /STP needs to be provided.

(ix) The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.

(x) The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS or any other authority as prescribed by the law.

(xi) The project proponent shall take all precautionary measures to ensure riverine/riparian ecosystem in and around the coal mine up to a distance of 5 km. A rivarine/riparian ecosystem

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conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.

(d) Noise and Vibration monitoring and prevention

(i) Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.

(ii) Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.

(iii) The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

(e) Mining Plan

(i) Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.

(ii) Mining shall be carried out as per the approved mining plan (including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).

(iii) No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980.

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

(f) Land reclamation

(i) Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFC) from time to time shall be submitted to MOEFCC/Regional Office (RO).

(ii) The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural/forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.

(iii) The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the “during mining”/”post mining” land-use pattern,



which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.

(iv) Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.

(v) Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.

(vi) The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

(g) Green Belt

(i) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered/endemic flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.

(ii) Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the major approach/ coal transportation roads.

(h) Public hearing and Human health issues

(i) Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & it's RO on six-monthly basis.

(ii) The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations

shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.

(iii) Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.

(iv) Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.

(v) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-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'.

(i) Corporate Environment Responsibility

(i) The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders.

(ii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.

(iii) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

(v) Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

(j) Miscellaneous

(i) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.



- (ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- (iii) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- (iv) The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- (v) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- (vi) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-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'.
- (vii) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- (viii) The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
- (ix) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- (x) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- (xi) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change.
- (xii) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- (xiii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- (xiv) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

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(xv) 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.

(xvi) The above conditions shall 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, Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 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.

5. The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during presentation to the EAC. All the commitments made on the issues raised during public hearing shall also be implemented in letter and spirit.

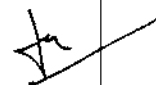
6. The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection. The Ministry or any other competent authority may stipulate any further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

7. Any appeal against this environmental clearance 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.

8. The coal company/project proponent shall be liable to pay the compensation against the illegal mining, if any, and as raised by the respective State Governments at any point of time, in terms of the orders dated 2nd August, 2017 of Hon'ble Supreme Court in WP (Civil) No.114/2014 in the matter of 'Common Cause Vs Union of India & others.

9. The concerned State Government shall ensure no mining operations to commence till the entire compensation for illegal mining, if any, is paid by the project proponent through their respective Department of Mining & Geology, in strict compliance of the judgment of Hon'ble Supreme Court.

10. This environmental clearance shall not be operational till such time the project proponent complies with the above said judgment of Hon'ble Supreme Court, as applicable, and other statutory requirements.



(Lalit Bokolia)
Director

Copy to:

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. The Principal Secretary, Department of Environment, Government of Maharashtra, 15th Floor, New Admin. Bldg, Madam Cama Road, Mantralaya, Mumbai-32 (Maharashtra)
3. The Additional PCCF (Central), Ministry of Environment Forest and Climate Change, Regional Office (Western Central Zone), Ground Floor, East Wing, New Secretariat Building Civil Lines, Nagpur-1 (Maharashtra)
4. The Chairman, Central Ground Water Authority, Ministry of Jal Shakti, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
5. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi -32
6. The Member Secretary, Maharashtra State Pollution Control Board, Kalapataru Point 3rd and 4th Floors, Sion Circle, Sion (E), Mumbai-2
7. The District Collector, Nagpur, Government of Maharashtra
8. Monitoring File/Guard File/Record File
10. PARIVESH Portal


(Lalit Bokolia)
Director