



No. J-11015/54/2006-IA-II (M)

Government of India

Ministry of Environment, Forest & Climate Change

Impact Assessment Division

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Dated: 20<sup>th</sup> May, 2021

To,

The General Manager (Environment),

M/s Western Coalfields Ltd,

Coal Estate, 9<sup>th</sup> Floor, Civil Lines,

**Nagpur** - 1 (Maharashtra)

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**Sub: Expansion of Makardhokra-I Opencast mine (Phase-I) in Capacity from 2 MTPA to 3.50 MTPA of M/s Western Coalfields Limited in mine lease area of 614.69 ha located in Tehsil Umrer, District Nagpur (Maharashtra) – For Environmental Clearance – reg.**

Sir,

This has reference to your online proposal No. IA/MH/CMIN/154498/2018 dated 31<sup>st</sup> May, 2020, submitted to this Ministry for grant of Environmental Clearance (EC) in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986 for Expansion of Makardhokra-I Opencast mine (Phase-I) in Capacity from 2 MTPA to 3.50 MTPA of M/s Western Coalfields Limited in mine lease area of 614.69 ha located in Tehsil Umrer, District Nagpur (Maharashtra).

2. 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 Expert Appraisal Committee (EAC) in its 56<sup>th</sup> meeting held on 30<sup>th</sup> June, 2020, 9<sup>th</sup> meeting held on 11<sup>th</sup> February, 2021 and 11<sup>th</sup> meeting held on 9<sup>th</sup> April, 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 existing Makardhokra –I OC Coal mine project has been granted environmental clearance vide ref no. J-11015/54/2006-IA. II (M) dated 26.11.2015 for production capacity of 2.00 MTPA within ML area of 660.70 Ha.
- (ii) The present proposal is for obtaining Environmental Clearance for Expansion of Makardhokra I OC (Phase-I) by increasing production capacity from 2.00 MTPA to 3.50 MTPA within ML area of 614.69 Ha.
- (iii) ToR for the expansion proposal for increasing production capacity from 2.00 MTPA to 3.50 MTPA within 614.69 ha area has been granted vide MoEF&CC Letter No. J-11015/54/2006-IA. II (M) dated 07.11.2019.
- (iv) The project area is covered under Survey of India Topo Sheet No 55 P/1 and 55 P/5 is bounded by the geographical coordinates ranging from latitude N 20°50'33" to 20°52'14" and Longitude E 79°14'7.8" to 79°16'24".

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- (v) Coal linkage of the project is from Thermal power plants of MAHAGENCO & Miscellaneous consumers. There is no Joint venture involved.
- (vi) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13<sup>th</sup> January, 2010 has imposed moratorium on grant of environment clearance.
- (vii) Employment generation: Required Manpower for the project is 275 Nos as direct employment and approx. 300 contractual employments will be generating through outsourcing work.

(viii) Project benefits

Sl. No	Type of Project Benefits	Details of Project Benefits
1	Environmental	Increase in Green belt area (green cover over an area of 162.26 ha), Mine water utilization for adjoining areas and Conservation of coal.
2	Social	Direct employment to eligible persons preferable local persons besides creating indirect employment opportunities. Various CSR activities in adjoining villages will help in improving social status.
3	Financial	The project will contribute government through various taxes.

- (ix) Total land involved in Phase – I is 614.69 ha. Mining Plan (built in Mine closure plan) of Expansion of Makardhokra I OC mine (Phase-I) for production capacity of 3.50 MTPA was approved by WCL Board in its 313<sup>st</sup> meeting held on 01.08.2019 vide letter WCL/BD/SECTT/BM-313/2019/712 dated 06.08.2019.

- (x) The land usage pattern of the project is as follows:

Pre-mining land use details : Details of changes in land use is provided below:

Sl. No.	Type of land	Land (Ha) Proposed in approved Mining Plan
1	Tenancy Land	589.97
2	Govt. Land	24.72
3	Forest land	0.00
	<b>Total</b>	<b>614.69</b>

Post-mining land use details

S.No.	Land use during mining	Land use (ha)				
		Plantation	Water Body	Public Use	Undisturbed	Total
1	Excavated Area	0	156.06	0	96.90	252.96
2	External OB dump	120	0	0	17.81	137.81
3	Infrastructure	2.00	0	11.00	0	13.00
4	Road	0.50	0	1.50	0	2.00
5	Green Belt	8.00	0	0	0	8.00
6	Safety Zone	0	0	0	56.24	56.24
7	Miscellaneous (300m blasting zone, river diversion, power line diversion & rationalization	31.76	0	0	112.92	144.68

S.No.	Land use during mining	Land use (ha)				
		Plantation	Water Body	Public Use	Undisturbed	Total
<b>Total</b>		<b>162.26</b>	<b>156.06</b>	<b>12.50</b>	<b>283.87</b>	<b>614.69</b>

- (xi) Total geological reserve reported within the quarry limits is 52.863 MT. Out of 52.863 Mt net in-situ geological reserves in Makardhokra-I block, 16.358Mt coal reserves is blocked in quarry batter, sub-crop and surface infrastructure like Railway line etc. which will be mostly worked in future after dismantling of Railway line. Hence, the total net in-situ geological reserves within the quarry works out to 36.505 Mt (52.863-16.358). The balance mineable reserves considering 5% mining losses in phase – I quarry area works out to 17.16 Mt. Extractable reserves as on 01.04.2019 are 16.30 MT (Phase – I). Percent of extraction is 95.00%.
- (xii) Grade of Coal GCV – 4997 Kcal/kg, G-8, stripping ratio 1: 7.35 m<sup>3</sup>/t.
- (xiii) Mining operations presently being done by opencast method with shovel dumper combination and same method will continue in the expansion also.
- (xiv) Life of mine: 5 years.
- (xv) Backfilling of total 24.03 Mm<sup>3</sup> (Already backfilled 15.88 + Balance 8.15 Mm<sup>3</sup>) of OB into void of adjacent Makardhokra II OC will save approximately 75 Ha of additional land from degradation.
- (xvi) Merger of External OB Dump, Internal Dumps of Makardhokra I OC & Makardhokra II OC will accommodate additional 17.5 Mm<sup>3</sup> of OB which would result in saving of approximately 50 ha from land degradation. Thus, Backfilling in Makardhokra II OC and merging of Dumps would result in overall saving of 125 Ha of land.
- (xvii) Total quarry area is 252.96 Ha. Out of which backfilling will be done in 96.90 Ha while final mine void will be created in an area of 156.06 Ha with a maximum depth of 140 m. Final mine void will be converted into water body.
- (xviii) Transportation of coal in pits by dumpers, from surface to Railway sidings by tippers. Coal will be transported in tarpaulin covered trucks to Umrer Railway siding.
- (xix) Reclamation Plan/afforestation plan is for 162.26 Ha. It includes reclamation of 120.00 Ha of external OB dump, 31.76 Ha on undisturbed land and 8 Ha Green Belt and 2 Ha along infrastructure and 0.5 Ha along roads.
- (xx) No forest land has been reported to be involved in the project.
- (xxi) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project.
- (xxii) The ground water level has been reported to be varying between 3.55 to 6.75 m during pre-monsoon and between 2.0 to 5.06 m during post-monsoon (core zone). Total water requirement for the project is 480 KLD.
- (xxiii) NOC from CGWA has been secured for abstraction of ground water vide its letter CGWA/ NOC/ MIN/ ORIG/ 2020/ 8139 dated 09.06.2020
- (xxiv) Public Hearing has been conducted at Community Hall, WCL Colony, Umrer Tehsil, District Nagpur, Maharashtra at 11.00 AM on 16.01.2020. Public Hearing was conducted for increase in production capacity from 2.00 MTPA to 3.50 MTPA within 614.69 Ha of Expansion of Makardhokra-I OC Mine.

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- (xxv) Consent to Operate: Consent to Operate has been granted for existing Makardhokra – I OC for 2.00 MTPA capacity vide Format1.0/BO/CAC-Cell/CAC- UAN No. 24388/ CC-1901000356 dated 05.01.2019 valid from 31.03.2016 to 31.03.2021.
- (xxvi) Nala No-2 (Shirpur nala) flowing in the eastern direction passing through the central part of the block is a seasonal nala and it ultimately discharges into the Amb river further east near Kanwa village outside the block. This nala has been diverted beyond quarry surface of Phase-I quarry. The Amb river meets the Wainganga river near its confluence with Kanhan river about 40 km ENE of the coalfield.
- (xxvii) Baseline data generated including meteorological data, air quality, water quality, and noise quality, during April 2019 to June 2019 for adjacent Umrer OC, is used as baseline for this project. In compliance with EAC directives & specific ToR conditions, baseline data has been augmented with baseline data generated from Oct'2019 to Jan'2020 for Makardhokra – I expansion OC. The results were found to be within the permissible limits.
- (xxviii) The baseline data for ambient air quality generated in post-monsoon season from 15<sup>th</sup> October, 2019 to 15<sup>th</sup> January, 2020 for 12 weeks continuously was found to be within the permissible limits.
- (xxix) No court cases, violation cases are pending against the project pertaining to environment.
- (xxx) Total cost of the project is Rs 266.2308 crores including WDV of Rs 30.4700 crores of existing assets (As per approved PR, March 2014).
- (xxxi) No rehabilitation of village is envisaged in Phase-I of the project

4. The sectoral Expert Appraisal Committee in its 11<sup>th</sup> meeting held on 9<sup>th</sup> April, 2021 has recommended the proposal for grant of Environment Clearance. Based on recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords approval for Expansion of Makardhokra-I Opencast mine (Phase-I) in Capacity from 2 MTPA to 3.50 MTPA of M/s Western Coalfields Limited in mine lease area of 614.69 ha located in Tehsil Umrer, District Nagpur (Maharashtra), under the provisions of Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & specific conditions and standard EC conditions for environment safeguards:

- (i) The PP shall complete all non-compliance/ partial compliance within 6 months and the action taken report shall be submitted to Regional Office of the MOEF&CC
- (ii) Continuous Ambient Air Quality Monitoring station should be installed in consultation of SPCB and made operation within six months from the date of issue of this letter and the real time data so generated to be uploaded on company website. In addition, data should also be displayed digitally at entry and exist gate of mine lease area for public display.
- (iii) Adequate effectiveness of EMP should be analyzed from the offset/hike of air pollution data from continuous monitoring station and quarterly report shall be generated and submitted with 6 monthly compliance reports to RO, MoEF&CC.
- (iv) PP shall submit a third party assessment of EC Compliance shall be undertaken once in three years through reputed agency or any other expert agency identified by the Ministry to Ministry's Regional Office.
- (v) Continuous Monitoring at Occupational safety and health hazards and the Corrective action need to be ensured.

- (vi) Persons of nearby villages shall be given training on livelihood and skill development to make them employable.
- (vii) PP to plant 100,000 nos. of Sal trees only and develop nursery of 10 ha sal trees for free distribution in nearby areas and Thick Greenbelt of adequate 50 mts width at the final boundary or along the transportation route in the down wind direction of the project site shall be developed. A proper mechanism to be put in place for massive plantation by hiring expert agency in 2 years for proper survival of trees.
- (viii) Mining shall be carried out only by surface miners for the project and silo loading till railway siding through in-pit conveyor should be installed to avoid road.
- (ix) 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 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 MoEFCC.
- (x) 10 nos. long ranging Fog canon system shall be installed to reduce the impact of air pollution on haul road, OB dump, mining areas, CHP and Railway siding
- (xi) The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity.
- (xii) Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles
- (xiii) Commitment made during public consultation process shall be adhere to. The proposed amount earmarked for CER activities shall be considered as part of Environment Management Plan, which shall be accomplished within period of 5 years"
- (xiv) Project Proponent shall obtain blasting permission from DGMS for conducting mining operation near villages and also explore deployment of rock breakers of suitable capacity in the project to avoid blasting very near to villages. There shall be no damages caused to habitation/structures due to blasting activity.
- (xv) In addition, the project proponent shall develop greenbelt outside the plant premises such as avenue plantation, plantation in vacant areas, social forestry etc.
- (xvi) PP shall pay to farmers of agricultural land if there is any loss and for cracks in the house due to blasting found by concerned District Commissioner as per extent rules or norms.
- (xvii) PP shall establish ambient air and noise monitor station at Shirpur, Heoti/Hewati village for fortnightly monitoring and conduct regular health assessment in nearby villages.
- (xviii) PP shall provide and establish permanent domestic water distribution network for consumption to villagers of shirpur, kanwa, Makardhokra, Heoti/Hewati & Katara and other nearby villages and provide approach road for their agricultural lands.

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- (xix) PP shall take appropriate action for flooding in the low lying area and agriculture fields happening due diversion of Amb river
- (xx) PP shall maintain the alternate route from Hewati to Makardhokra which has been established by WCL and tree plantation shall be carried out on both sides of road.
- (xxi) PP shall manage the heavy transportation on Udasa bypass road and take necessary safety measures. WCL shall provide adequate truck parking area.
- (xxii) Permission for diversion of Shirpur stream should be taken prior to any diversion activity. The diverted stream shall be stone pitched and plantation shall be done all along the embankment of the stream.
- (xxiii) PP shall implement the road map of trees plantation as submitted during EAC meeting along both the sides of the Butibori-Kanwa PWD road which is passing in between proposed dip side quarry surface and external dump with broad leaves.
- (xxiv) Mining shall be carried out only by surface miners for the project (as proposed) and silo loading till railway siding through in-pit conveyor should be installed to avoid road transportation in 3 years.
- (xxv) Top soil should be stored separately at marked area and necessary vegetation shall be maintained to avoid any entrainment of dust
- (xxvi) All approach roads to mine and all other roads which are in regular use should be black topped. The maintenance of road shall be done by PP in collaboration with state government. The details of expenditure incurred shall be submitted to Ministry's Regional Office.
- (xxvii) 2 nos of Water Harvesting Pond of adequate area and depth shall be development within 5 km of project area

**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).

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- (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.
- (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 PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>. 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.
- (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 25<sup>th</sup> 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 PM<sub>10</sub>/PM<sub>2.5</sub>) 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

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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 25<sup>th</sup> 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-20012/1/2006-1A.11 (M) dated 27<sup>th</sup> 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 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 riverine/riparian ecosystem 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(MOEFCC) 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 27<sup>th</sup> 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 29<sup>th</sup> 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'.

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**(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.
- (iv) 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; PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (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 29<sup>th</sup> 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.
  - (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

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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 2<sup>nd</sup> 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, 15<sup>th</sup> Floor, New Admn. 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 Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi
5. The Chairman, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
6. The Chairman, Maharashtra State Pollution Control Board, Kalapataru Point, 3<sup>rd</sup> & 4<sup>th</sup> Floors, Sion, Matunga Scheme Road No. 8, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai - 2
7. The District Collector, Nagpur, Government of Maharashtra
8. Monitoring File/Guard File      9. PARIVESH Portal

  
(Lalit Bokolia)  
Director