



No. J-11015/381/2015-IA-II (M)
Government of India
Ministry of Environment, Forest & Climate Change
Impact Assessment Division

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Dated: 1st January, 2021

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: Amalgamated Yekona I & II OC (Phase-I) with increase in production capacity from 1.0 MTPA to 2.75 MTPA (Normative) of M/s Western Coalfields Limited and increase in land area from 680.06 ha to 1679.39 ha located in Tehsil Warora, District Chandrapur (Maharashtra) - For Environmental Clearance – reg.

Sir,

This has reference to your online proposal No. IA/MH/CMIN/135434/2019 dated 7th January, 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 Amalgamated Yekona I & II OC (Phase-I) with increase in production capacity from 1.0 MTPA to 2.75 MTPA (Normative) of M/s Western Coalfields Limited and increase in land area from 680.06 ha to 1679.39 ha located in Tehsil Warora, District Chandrapur (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 53rd meeting held on 20th February, 2020, 55th meeting held on 29th May, 2020, 1st EAC meeting held on 17-18 August, 2020 and 3rd EAC meeting held on 27th October, 2020. 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 Yekona-I OC and Yekona-II OC mines have been granted environmental clearance vide letter EC sanctioned vide letter J-11015/175/ 2006-IA.II(M) Dated-17 October, 2006 (production capacity- 0.40 MTPA within ML area of 265.50 ha) and letter J-11015/182/2006-IA.II(M) Dated-17 October, 2006 (production capacity- 0.60 MTPA within ML area of 414.56ha) respectively.

- (ii) The existing mines are proposed to be amalgamated with increasing in Capacity from 1.0 MTPA to 2.75 MTPA (Normative) and 3.44 MTPA (Peak) & Expansion in Land Area from 680.06 ha to 1679.39 ha in Phase-I
- (iii) The proposal was granted ToR vide MoEF&CC vide letter no J-11015/381/2015.IA-II (M) dated 06.06.2016 for Amalgamated Yekona I & II OC involving increase in production capacity from 1.00 MTPA to 3.44 MTPA (peak) and increase in ML area from 680.06 ha to 1701.32 ha based on the approved Project Report. MoEF&CC accorded approval for extension of validity of ToR dated 6th June, 2016 for Amalgamated Yekona I & II OC for a period of 1 year i.e. up to 6th June, 2020 vide MoEF&CC letter no J-11015/381/2015.IA-II (M) dated 21.06.2019.
- (iv) The project area is covered under Survey of India Topo Sheet No 55L/15 & 55L/16 and is bounded by the geographical coordinates ranging from Latitudes N 20° 13' 39" to 21° 16' 14" N and longitudes E 78° 55' 25" to 78° 58' 24" E
- (v) Coal linkage of the project was for 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 13th January, 2010 has imposed moratorium on grant of environment clearance
- (vii) Employment generation: Required Manpower for the project is 257 Nos (Departmental)
- (viii) This project will thus bridge the gap (to the extent of the peak production capacity of the project) between demand & supply of non – coking coal for power plants & other bulk consumer.
- (ix) The Project Report (including Mining Plan) of Amalgamated Yekona I & II OC was duly approved by CIL Board for normative capacity of 2.75 MTPA and peak capacity of 3.44 MTPA within area of 1701.32 ha in its 319th meeting held on 12.08.2015 as communicated by Company Secretary, CIL vide its letter no. CIL: XI(D):04112:2015:10875 dated 26.08.2015.
- (x) Total mining lease area is increased from 680.06 ha to 1679.39 ha. The Mining Plan (including Mine Closure plan) of Amalgamated Yekona I & II OC Mine Phase-I of Majri Area was duly approved by WCL Board for Phase-I in its 315th meeting held on 27th & 28th September, 2019 vide its letter no. WCL/BD/SECTT/BM-315/2019/958 dated 12.10.2019
- (xi) RO, MoEF&CC, Nagpur made field visit of Yekona I & II OC mine for ascertaining status of compliance of EC conditions on 26.06.2019. The Certified Compliance Report was issued by the Regional Office of MoEF&CC, Nagpur vide letter no. EC-1016/RO/2019-NGP/5622 dated 19.08.2019. Subsequently, Action Taken Report on the partial compliances has been submitted to RO, MoEF& CC vide letter no. 150 dated 23.08.2019.
- (xii) The Phase-I of Project is only an interim arrangement for working without inclusion of forest land. However, as the forestry clearance is obtained, the mine will continue as per the approved Project Report with total ML Area of 1701.32 ha. Fresh EC will be secured dovetailing the land area of 21.93 ha (total remaining 1701.32 ha as per TOR) as Phase-II. Accordingly, the breakup of land use during mining, post mining land use, Stage-wise land use reclamation and Stage-wise plantation programme are detailed below for total ML area of 1701.32 ha.
- (xiii) Pre-mining land use for Amalgamated Yekona I & II OC (Phase-I)

S.N.	LAND USE	Within ML Area (ha)	Outside ML Area (ha)	Total
1	Agricultural land	1570.31	50.49	1620.80
2	Forest land	--	--	--
3	Waste land/Govt. land	58.59	-	58.59
4	Grazing land	--	--	--
5	Surface water bodies	--	--	--
6	Settlements	--	--	--
7	Others (specify)	--	--	--
	Total	1628.90	50.49	1679.39

For Amalgamated Yekona I & II OC

Sr No.	LAND USE	Within ML Area (ha)	Outside ML Area (ha)	Total
1	Agricultural land	1590.62	50.49	1641.11
2	Forest land	0.62	--	0.62
3	Waste land/Govt. land	59.59	-	59.59
4	Grazing land	--	--	--
5	Surface water bodies	--	--	--
6	Settlements	--	--	--
7	Others (specify)	--	--	--
	Total	1650.83	50.49	1701.32

Land Use During Mine:

Sl. No	Particulars	Area (ha)
1.	Quarry/ excavated Area (including existing quarry)	689.20
2.	External OB dump	320.02
3.	Nalla Diversion and existing Nalla& Irrigation Canal	58.35
4.	Residential Colony (Approximately)	10.00
5.	Roads, Road diversion and Barriers due to roads (Approximately)	30.00
6.	Infrastructure and service roads (Approx.)	100.00
7.	Flood protection embankment	44.37
8.	Land for relocation of Marda village	8.00
9.	Railway siding and its Approach road	30.00
10.	Blasting / Safety zone along quarries and external dump	270.00
11.	Rationalization of boundary	141.38
	Total	1701.32

Post Mining Land Use details:

S.N.	Land use during mining	Land use (ha)				Total
		Plantation	Water Body	Public use	Undisturbed	
1	External OB Dump	320.02	--	--	--	320.02
2	Top soil dump	--	--	--	--	--
3	Excavation	352.00	337.20	--	--	689.20

4	Roads	5.00	--	25.00	--	30.00
5	Built up area	70.00	--	122.37	--	250.72
5a	Nalla and Canal Diversion	--	58.35	--	--	58.35
6	Green Belt	Included in S. No. 4, 5 & 7				
7	Undisturbed Area	100.00	--	--	311.38	411.38
	Total	847.02	395.55	147.37	311.38	1701.32

- (xiv) Total geological reserve reported in the mine lease area is 78.62 MT with 67.65 Mt mineable reserve. Extractable reserves are 57.85 Mt. Percent of extraction is 73.58 %.
- (xv) There is one composite seam with multiple sub sections Sequence of Coal Seams in the Yekona-I OC and Yekona-II OC blocks are given below. Sequence of Coal Seams in Yekona-I Block:
- (xvi) Grade of Coal GCV – 4920Kcal/kg, G8, stripping ratio 1: 7.82 m³/t
- (xvii) Mining operations undertaken by opencast method with shovel dumper Combination and Surface Miner.
- (xviii) Life of mine: 25 years
- (xix) The project will have two nos. internal dumps in an area of 352.00 ha with Maximum height of 90 m above ground level and quantity of 322.53Mm³ of OB. A total seven nos of external OB dumps are envisaged including 4 temporary dumps to be rehandled within total area of 320.02 ha and upto the height of 90 m above ground level and quantity of 133.50 Mm³ of OB (including embankment). 2.42 Mm³ OB will be utilized in construction of Embankment.
- (xx) Total quarry area is 689.20 ha. Backfilled quarry area of 352.00 ha shall be reclaimed with plantation. Final mine void will be created in an area of 337.20ha with a maximum depth of 150 m. Final mine void will be converted into water body.
- (xxi) Transportation of coal in pits by dumpers, from surface to Railway sidings by tippers. The coal will be transported to Thermal power plants of MAHAGENCO and to Miscellaneous Consumers. Railway Siding is proposed for the project.
- (xxii) Reclamation Plan/afforestation plan is for 847.02 ha. It includes 320.02 ha of external OB dump, 352.00 ha of internal dump, 100 ha on undisturbed land and 5 ha along roads & infrastructure.
- (xxiii) No forest land has been reported in the Phase-I of the project.
- (xxiv) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project. The presence of Schedule-I species Great Indian Bustard has been reported within the study area.
- (xxv) The ground water level has been reported to be varying between 7.75 to 10.64 m during pre-monsoon and between 4.65 to 8.10 m during post-monsoon (core zone). Total water requirement for the project is 810 KLD.
- (xxvi) CGWA NOC: NOC from CGWA has been secured for abstraction of ground water vide its letter CGWA/ NOC/ MIN/ ORIG/ 2019/ 6689 dated 19.11.2019.
- (xxvii) Public Hearing has been conducted on 14.06.2019 for proposed conversion of Amalgamated Yekona I & II OCP at Mine Manager Office Premises, Yekona OC, WCL, Tal. Warora, Dist. Chandrapur. The minutes of meeting was received from Maharashtra Pollution Control Board vide letter MPCB/SROC-3929/2019 dated 23.07.2019. The ATR

against issues raised during public hearing along with the fund provision and timeline are provided in Chapter-7 of the EIA-EMP report.

- (xxviii) The CTE for the Yekona-I OC has been granted by Maharashtra Pollution Control Board vide consent no BO/RO(P&P)/CC-330 dated 13.03.2006. However, mining activities could not be started due to delay in physical possession of land. The application for CTO of Yekona-I OC has been made by Project Proponent on 18.02.2019 for the period of 01.04.2019 to 31.03.2020 (Application no - UAN No. 67296). The application under consideration at Maharashtra Pollution Control Board. The mining operations in Yekona-I OC are likely to be commenced before March'20.
- (xxix) The mining operations has been started by 26th October 2017 within the Yekona –II OC in accordance with the EC dated 06.10.2006. The Yekona – II OC mine has been granted CTE by Maharashtra Pollution Control Board vide consent no BO/RO(P&P)/CC-328 dated 13.03.2006 for production capacity of 0.60 MTPA. CTO for Yekona-II OC mine for production capacity of 0.60 MTPA within ML area of 414.56 ha was granted by MPCB vide consent order no:-BO/JD(APC)/EIC No: CH-1781-15/O/CC-6269 dated 12.05.2016 with validity till 31.08.2020.
- (xxx) A seasonal nallah flowing in the eastern boundary of the mine will be diverted along the mine boundary. An irrigation canal passing through the project area will also be diverted along the southern boundary of OCP.
- (xxxi) NOC from CGWA has been secured for abstraction of ground water vide its letter CGWA/NOC/MIN/ORIG/2019/6689 dated 19.11.2019.
- (xxxii) Baseline for Ambient Air Quality has been generated from Oct' 2016 to Dec' 2016 in the Post monsoon season. The results were found to be within prescribed limits. The regular environment monitoring is being done continuously in the core and buffer zone of the project. In continuation with regular environmental monitoring, monitoring at five locations at baseline frequency i.e twice a week has been started from Jan'2020 and will be continued for twelve weeks. Additional three stations have also been added from Feb'2020
- (xxxiii) No court cases, violation cases are pending against the project of the PP pertaining to environment.
- (xxxiv) 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 Yekona-I and Yekona-II OC mines since grant of EC in 2006
- (xxxv) The project involved 797 project affected families. A Capital provision of Rs. 41.1908 crores has been made in approved Project Report for resettlement of Marda Village.
- (xxxvi) Total capital cost of the project is Rs. 745.8313 Crores. Capital cost on Environment management plan is Rs 97.09 Lakhs. Revenue cost on EMP will be 6 Rs/tonne. CSR fund will be utilized in the 15 Km radius of the project which will add to the overall socio-economic development of the area. The commissioning of the project will create direct & indirect employment.

4. The sectoral Expert Appraisal Committee in its 3rd meeting held on 27th October, 2020 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 Amalgamated Yekona I & II OC (Phase-I) with increase in production capacity from 1.0 MTPA to 2.75 MTPA (Normative) of M/s Western Coalfields Limited and increase in land area from 680.06

ha to 1679.39 ha located in Tehsil Warora, District Chandrapur (Maharashtra), 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 as stated below:-

- (i) The Environmental Clearances issued vide letter nos vide letter J-11015/175/ 2006-IA.II(M) Dated-17 October, 2006 and letter J-11015/182/2006-IA.II(M) Dated 17th October, 2006 dated shall be applicable along with this conditions.
- (ii) The project proponent shall obtain Consent to Establish/Operate from the State Pollution Control Boards for the proposed capacity of 2.75MTPA prior to commencement.
- (iii) Third party monitoring (by NEERI/CIMFR/IIT/NITs) for air quality shall be carried out at identified locations, both ambient and the process area, to arrive at impact of the proposed expansion at regular interval of 3 years.
- (iv) Top soil should be stored separately at marked area and necessary vegetation shall be maintained to avoid any entrainment of dust.
- (v) PP shall construct embankment leaving 100 mtrs away from HFL of Wardha river and the same shall be taken prior approval from DGMS
- (vi) Transportation of coal from Coal Handling Plant shall be through mechanized covered trucks for 3 years. No transportation by trucks after 3 years and proposed railway siding/pipe conveyor system.
- (vii) All the villages coming under the zone of influence as in hydrology study shall be provided with suitable water supply alongwith sanitation facility
- (viii) Commitment made during public consultation process shall be adhere to. As proposed, Rs. 45.35 Crore is earmarked for CER activities shall be considered as part of Environment Management Plan, which shall be accomplished within period of 5 years.
- (ix) Water quality and Bioassay test of Wardha River shall be monitored quarterly and submitted to State Pollution Control Board. No water shall be discharged in river.
- (x) Quarterly monitoring of quality of water from bore hole used for drinking purpose shall be conducted and report thereof shall be submitted to SPCB
- (xi) Progressive backfilling of mine and progressive reclamation of OB dump shall be done
- (xii) To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers
- (xiii) Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient fixed type water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at loading and unloading points, etc.
- (xiv) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

- (xv) The total industrial water demand (peak) in operation phase shall be met by utilizing treated mine discharge water. If require, necessary arrangement shall be made to reuse treated water from STP & ETP to nearby TPP or coal washery /or future coal washery by entering suitable agreement. No wastewater (treated or untreated) shall be discharged into the river or any other water body
- (xvi) PP shall take permission of State Public Works Department before the proposed diversion of Road. Road between Naidev village to Warora shall be constructed by project proponent in co-ordination with PWD atleast 7 mts width and tree plantation shall be done along with road (both sides).
- (xvii) STP for proposed colony shall be constructed within one year of implementation of colony
- (xviii) Toe wall of atleast 15 mts to 20 mts height should be constructed along the OB dump to protect yekona village.
- (xix) 5 Fog canon shall be installed to reduce the impact of air pollution for nearby yokona village
- (xx) Water storage ponds shall be constructed of appropriate depth in nearby village (Pandurni Vilalge, Wanoja Village, Naydev Village and Mohbala Village) in collaboration with Gram Panchayats.
- (xxi) Peripheral tree plantation of local species in nearby village (Pandurni Vilalge, Wanoja Village, Naydev Village and Mohbala Village) in collaboration with Gram Panchayats.
- (xxii) Fund allocated in Approved Wildlife conservation plan for schedule I species shall be deposited within six months of issue of EC letter.
- (xxiii) Green belt along the mine boundary should be developed on priority basis preferably within first 3 years
- (xxiv) The recommendation of Scientific Study for Method of Working, Ultimate Pit Slope, Dump Slope & Monitoring of Slope Stability conducted by Indian Institute of Technology, Kharagpur shall be complied
- (xxv) 3- teir tree plantation with wired fenching shall be by project proponent for clearly demarcating forest land adjacent forest land.
- (xxvi) Persons of nearby villages shall be given training on livelihood and skill development to make them employable.
- (xxvii) 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.
- (xxviii) Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.
- (xxix) Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles
- (xxx) Project proponent to plant 150,000 nos. of native trees with broad leaves along the transportation route in three years to prevent the effect of air pollution. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer.

- (xxxi) 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.
- (xxxii) The Project Proponent shall comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. State Government shall ensure that the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department in strict compliance of judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- (xxxiii) Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table.
- (xxxiv) 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.
- (xxxv) 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".
- (xxxvi) 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.
- (xxxvii) 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 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.
- (xxxviii) 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.

Specific condition with respect area being in CPAs

- (i) CTE/CTO for the project shall be obtained from the SPCB as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, and the SPCB shall follow the mechanism/protocol issued by the Ministry vide letter no. Q-16017/38/2018-CPA dated 24th October, 2019 while issuing the CTE/CTO for the project, for improvement of environmental quality in the area.
- (ii) The green belt of at least 5-10 m width shall be developed in more than 40% of the total project area, mainly along the periphery of mine boundary, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (iii) In addition, the project proponent shall develop greenbelt outside the plant premises such as avenue plantation, plantation in vacant areas, social forestry etc.
- (iv) Monitoring of compliance of EC conditions may be submitted with third party audit every year.
- (v) Fund allocation for Corporate Environment Responsibility (CER) which is atleast 2 times as per OM of 1st May, 2018 may now be considered as 2 time of fund allocated on commitment made during public consultation process for incorporating in EIA-EMP for deliberation of EAC and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- (vi) Effective fugitive emission control measures should be imposed in the process, transportation, packing etc.
- (vii) Transportation of materials by rail/ conveyor belt, wherever feasible.
- (viii) A detailed water harvesting plan may be submitted by the project proponent
- (ix) In case, domestic waste water generation is more than 10 KLD, the industry may install STP.
- (x) Monitoring of compliance of EC conditions may be submitted with third party audit every year

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.
- (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.
- (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 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 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 project proponent shall comply with the provisions contained in this Ministry's OM vide F.No.22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- (ii) The company shall have a well laid down environmental policy duly approve 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.
- (iii) 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 to the head of the organization.
- (iv) 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.

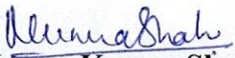
- (xiv) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- (xv) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend 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.


(Munna Kumar Shah)
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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 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, 3rd & 4th Floors, Sion, Matunga Scheme Road No. 8, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai - 2
7. The District Collector, Chandrapur, Government of Maharashtra
8. Monitoring File/Guard File
9. PARIVESH Portal


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