



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

To,

The AVP  
COAL MINE BIRLA CORPORATION LIMITED  
Industry House, 2nd Floor, 159, Churchgate Reclamation, Mumbai, Mumbai  
City, Maharashtra-400020

**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/MP/CMIN/185753/2020 dated 21 Jan 2022. The particulars of the environmental clearance granted to the project are as below.

- |  |  |
|--|--|
| 1. EC Identification No.                   | EC22A042MP160150   |
| 2. File No.                                | IA-J-11015/23/2020-IA-II(M)  |
| 3. Project Type                            | New  |
| 4. Category                                | A  |
| 5. Project/Activity including Schedule No. | 1(a) Mining of minerals  |
| 6. Name of Project                         | Bikram Coal Mine (ML Area: 239 Ha), for 0.36 MTPA Coal Production by Opencast & Underground Coal Mining at Tehsil - Burhar, District - Shahdol, M.P. |
| 7. Name of Company/Organization            | COAL MINE BIRLA CORPORATION LIMITED  |
| 8. Location of Project                     | Madhya Pradesh   |
| 9. TOR Date                                | 16 Dec 2020  |

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

Date: 20/05/2022

(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.*

*This is a computer generated cover page.*



**File No IA-J-11015/23/2020-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](mailto:lk.bokolia@nic.in) Tel: 01120819417

**Dated: 20<sup>th</sup> May, 2022**

To

The Joint President  
M/s Birla Corporation Ltd.,  
2nd Floor, Industry House, 159, Churchgate Reclamation,  
H.T. Parekh Marg, Maharshi Karve Road.  
Mumbai – 400020 (Maharashtra)  
Email: [sandeep.jain@birlacorp.com](mailto:sandeep.jain@birlacorp.com)

**Sub: Bikram Opencast cum Underground Coal Mine with production capacity of 0.36 MTPA in an ML Area of 239 Ha by M/s Birla Corporation Limited located at Villages Bartara and Gopalpur, Tehsil Burhar, District Shahdol (Madhya Pradesh) – For Environmental Clearance-reg**

Sir,

This has reference to your online proposal No. IA/MP/CMIN/185753/2020 dated 21<sup>st</sup> January, 2022, 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 Bikram Opencast cum Underground Coal Mine with production capacity of 0.36 MTPA in an ML Area of 239 Ha by M/s Birla Corporation Limited located at Villages Bartara and Gopalpur, Tehsil Burhar, District Shahdol (Madhya Pradesh).

2. The proposal was considered by the sectoral Expert Appraisal Committee (EAC) in its 26th meeting held on 18th February, 2022 and 29<sup>th</sup> EAC meeting held on 25 - 26 April, 2022. The details of the project, as per the documents submitted by the project proponent, and also as informed during the meeting, are reported to be as under: -

- (i) The project area is covered under Survey of India Toposheet No 64 E/12 and 64E/8 and is bound by the geographical coordinate's ranging from Latitude 23°11'04"N to 23°11'32" N and Longitudes 81°28'42" E to 81°31'02" E.
- (ii) Coal linkage of the project is proposed for captive use for Company's Own Integrated Cement & Power Plants located at Satna (Madhya Pradesh) and/or Chanderia (Rajasthan) and other plants of the company with provision of partial sale.
- (iii) Project does not fall in any Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13th January, 2010 has imposed moratorium on grant of environment clearance.
- (iv) Employment generation, employment to 701 persons (305 for opencast & 396 for underground mine) persons will be provided from the project.
- (v) The project is reported to be beneficial in terms of employment opportunities (direct as well



as indirect), Infrastructure & other social development, and overall development of area and country etc.

- (vi) This is a greenfield project. Environmental clearance is yet to be issued under EIA Notification 2006 and amendment made thereunder, for 0.36 MTPA coal production by opencast and underground coal mine in mine lease area of 239 ha.
- (vii) Standard Terms of Reference of the project was granted by Ministry on 16.12.2020.
- (viii) Total mining lease area as per block allotment is 239 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the Ministry of Coal, Government of India on 18.04.2011.
- (ix) The land usage pattern of the project is as follows:

**Pre-mining land use details (Area in Ha)**

Sl. No.	Land use	Within ML area (ha)	Outside ML area (ha)	Total (Ha)
1.	Agricultural Land	76.841	0.00	76.841
2.	Forest land	151.095*	0.00	151.095
3.	Waste land	4.167	0.00	4.167
4.	Grazing land	-	-	-
5.	Surface Water Bodies	-	-	-
6.	Settlements	-	-	-
7.	Other			
	• (Pond, Road, School etc. (Govt. Land))	6.521	0.00	6.521
	• Boundary (Merh)	0.376	0.00	0.376
	<b>Total</b>	<b>239</b>	<b>0.00</b>	<b>239</b>

*Note-\*(Revenue forest 9.020 ha+ Reserved Forest 142.075 ha)*

**Post Mining:**

No.	Land use during Mining	Land Use (Ha)				
		Plantation	Water Body	Public Use	Undisturbed	Total
1.	External OB Dump	0	0	0	0	0*
2.	Topsoil dump	3	0	0	0	3
3.	Excavation	79.53	39.07	0	0	118.6
4.	Roads	0	0	3	0	3
5.	Built-up areas	2.00 <sup>#</sup>	0	0	0	2.00
6.	Green belt	6.89	0	0	0	6.89
7.	Safety Zone	-	-	-	-	-

8.	Undisturbed Area	0	0	0	103.91	103.91
9.	Surface water reservoir	0	1.60	0	0	1.60

Note: \*11.8 ha was on mineral bearing area, re handled & backfilled by 10<sup>th</sup> year

# Facilities area

- (x) Total geological reserve reported in the mine lease area is 22.016 MT and 18.078 MT are mineable reserve. Out of total mineable reserve of 18.078 MT, 9.85 MT are available for extraction. Percent of extraction is 45 %.
- (xi) The annual production of the mine is proposed as maximum 0.36 MTPA, out of which opencast mining will be carried out for 23 years @ 0.16 MTPA and underground mining for 33 years @ 0.2 MTPA.
- (xii) Seven coal seams with thickness ranging from 0.90 m to 4.0 m are workable. Grade of coal is D/G7, stripping ratio 9.8:1, while gradient is 0 to 6 degree.
- (xiii) Method of mining operation is envisaged by both opencast by shovel dumper with hydraulic excavator as well as underground method by bord and pillar method.
- (xiv) Life of mine is 33 years.
- (xv) The project has one temporary surface OB dumps inside lease in an area of 11.8 ha with 50 m height and 1.78 Mm<sup>3</sup> of OB. At the end of OC mining operation after 23 years internal OB in an area of 79.53 ha with 36.09 Mm<sup>3</sup> of OB backfilling is envisaged in the project.
- (xvi) Total quarry area (in opencast) is 118.60 ha out of which backfilling will be done in 79.53 ha while final mine void will be created in an area of 39.07 ha with a depth of 60 m. Backfilled quarry area of 79.53 ha shall be reclaimed with plantation. Final mine void will be converted into water body.
- (xvii) Transportation of coal has been proposed by Tippers from OC pit to the pit head stockpile. The coal from UG mine will be brought out by conveyors and lead to a surface bunker/stockpile. From surface, coal will be transported by road or road cum rail to company's own plants.
- (xviii) Reclamation Plan in an area of 91.42 ha, comprising of 3.0 ha of top soil dump, 79.53 ha of internal dump/ backfilled dump, 6.89 ha green belt and 2.0 ha of facilities.
- (xix) 151.095 ha of forest land has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of 151.095 ha of forest land for non-forestry purposes has been initiated & revived vide proposal no. FP/MP/MIN/49537/2020 dated 09/09/2020 and the proposal is recommended by state Government on 20.12.2021 and the proposal is under process at MoEF&CC, New Delhi.
- (xx) There are no National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones fall within 10 km boundary of the project.
- (xxi) Wildlife conservation plan for schedule – I species has been submitted for seeking comments from the CWLW of the State Govt. vide letter no. BCL/Bikram/FC/06/21, dated 03.04.2021. Comments from CWLW is awaited.
- (xxii) The ground water level has been reported to be varying between 2.2 to 13.0 m during pre-monsoon and between 1.75 m to 10 m during post-monsoon. Total water requirement for the project is 234 KLD (potable water 34 KLD & industrial water 200 KLD).
- (xxiii) NOC for ground water abstraction has been obtained vide NOC no. CGWA/NOC/MIN/ORIG/2021/12093 issued on 17/06/2021.

- (xxiv) Public hearing for the project of 0.36 MTPA capacity in an area of 239 ha was conducted on 29.09.2021 at Govt. Middle School, Gopalpur, Village - Gopalpur, Tehsil Burhar District Shahdol, Madhya Pradesh under the Chairmanship of Addl. District Magistrate, Shahdol. Major issues raised in the public hearing include employment opportunity, provision of health care, drinking water & education, infrastructure development, pollution control measures, etc. Appropriate action to address the issues raised in the Public hearing have already been proposed to be taken are as submitted with basic information sheet.
- (xxv) Consent to Establish (CTE) shall be obtained after issuance of environmental clearance.
- (xxvi) Not any River/nalla (perennial) is flowing within boundary of lease. Thus, no nala diversion is proposed.
- (xxvii) Regular monitoring of ambient air quality shall be carried out on fortnightly basis. The documented report shall be submitted to Regional Officer, MPPCB, Member Secretary, MPPCB and also to MoEF&CC along with half yearly EC compliance report.
- (xxviii) No court cases, violation cases are pending against the project of the PP.
- (xxix) The project does not involve violation of the EIA Notification, 2006 and amendment issued there under. The coal production from the mine has not been started.
- (xxx) The project involves approximately 358 project affected families. Detailed survey are underway and data may get updated. R&R of the PAPs will be done as per Madhya Pradesh Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015.
- (xxxi) Total cost of the project as on date is about Rs. 289.45 Crores. Cost of production is Rs 2479 per tonne., CSR cost will be 2% of the average profit of three years as per Companies Act, R&R cost will be as per the R&R Plan. Capital and recurring Environment Management Cost is Rs. 15.40 crore (capital) and Rs. 5.62 Crore per year (recurring).
- (xxxii) Past Production details comparison with existing EC- Not applicable since project is yet to be implemented and no coal production has been there in the past.

4. The proposal was considered by the sectoral Expert Appraisal Committee (EAC) in 29<sup>th</sup> EAC meeting held on 25 – 26 April, 2022. and recommended for grant of Environment Clearance. Based on recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords approval to Bikram Opencast cum Underground Coal Mine with production capacity of 0.36 MTPA in an ML Area of 239 Ha by M/s Birla Corporation Limited in Villages Bartara and Gopalpur, Tehsil Burhar, District Shahdol (Madhya Pradesh), 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 as stated below:-

- (i) PP to obtain the CTO for 0.36 MTPA capacity after grant of EC.
- (ii) Coal Transportation by Road route is permitted for 5 years and further transportation shall be conducted only through railway siding. PP to submit the action taken and proof of consultation with railway in this regard to IRO, MoEF&CC in six monthly reports.
- (iii) PP shall focus on tree plantation along the area proposed by PP far from North to west to South direction near the dump 2 and before the habitation & in the east direction too for 100 mts with miyawaki technique. A detailed action plan with budgetary provision should be submitted within 6 months to IRO. Areal images in this regard should be submitted in six monthly reports to IRO as a proof.

- (iv) 1.59 ha forest land can only be used to accommodate the overburden quantity. Out of 1.59 ha, 0.75 ha land comes under revenue forest where not a single tree is present. Thus, only 0.84 ha of forest land may be considered to be disturbed. While reclamation the plantation to be carried out at 1.59 ha with proper maintenance. before handling
- (v) PP to undertake the recruitment of a full-fledged qualified manpower with Environmental Engineer/Env. Science degree background in Environment Management Cell etc at coal mining site for compliance of EC conditions.
- (vi) PP to fulfill all the commitment made to address the public hearing issued in time bound manner as committed vide letter BCL/EC/ Bikram/08/22 dated 26.03.2022 and a progressive report to be furnished to IRO with every six monthly compliance report
- (vii) PP shall comply to its letter Refer no. BCL/EC/ bikram/11/22 dated 26<sup>th</sup> April, 2022 submitted for Sal nursery development by June, 2022, Installation of Solar Power plant of 1 MWH in 5 years, Road side plantation in consultation with gram panchayat which should be initiated by June, 2022, development of haul road by March, 2023 instead of December 2023. PP to maintain the topped haul road properly to minimized the dust emission.
- (viii) PP to develop pucca roads connecting to State Highway 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. A record of it to be submitted to the respective IRO in six monthly compliance reports. All along the road tree plantation of about 20-30 mts shall be maintained.
- (ix) PP to furnish the record (audited) of actual budgetary expenditure for EMP in respect of capital cost of Rs. 22.83 crores & Recurring cost of Rs. 7.49 Crore per year.
- (x) PP to monitor the water quality of the ground water and surface water body located within the core zone and 5 km radius from the periphery of the mine boundary as per procedure laid down by CPCB.
- (xi) PP to install 1 more continuous ambient air quality monitoring stations at suitable locations preferably village side with consultation of SPCB. The real time data so generated shall be uploaded on company website and linked it with website of CPCB & SPCB. In addition, data should also be displayed digitally at entry and exit gate of mine lease area for public display.
- (xii) PP shall develop 2 water harvesting pond near the villages of suitable area as suggested by EAC in consultation with Gram Panchayat within 1 year.
- (xiii) PP shall deploy atleast 5 number of fog canons with 40 mts throw for mitigation of fugitive dust during mining operations within six months.
- (xiv) PP to plant additional 100,000 plants with three tier plantation along the haul Roads, if not completed, and identified areas with consent to the gram panchayat within one year and plant for remaining within 1 year for their proper growth.
- (xv) PP to install solar lights along the road used for transportation of minerals 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
- (xvi) 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

- (xvii) Persons of nearby villages shall be given training on livelihood and skill development to make them employable with its proper records
- (xviii) 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
- (xix) PP shall pay to farmers of agricultural land if there is any loss due to pollution found by concerned District Commissioner as per extent rules or norms.
- (xx) 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.
- (xxi) 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 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.
- (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.
- (vii) The Environmental clearance shall be subject to orders of Hon'ble Supreme Court of India, Hon'ble High Courts, NGT and any other Court of Law, from time to time, and as applicable to the project

**(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 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.

(viii) Major approach roads shall be black topped and properly maintained

**(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-IA.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.

207

(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.

(xii) The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side, stabilized with plantation so as to withstand the peak water pressure preventing any chance of mine inundation.

(xiii) Garland drains (of suitable size, gradient and length) around the critical areas i.e. mine shaft and low lying areas, shall be designed keeping at least 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. The sump capacity shall also provide adequate retention period to allow proper settling of silt material of the surface runoff

(xiv) 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.

**(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 activity shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.

(iv) Underground work place environmental conditions shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards.

(v) No change in mining method *i.e.* UG to OC, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).

(vi) 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.

(vii) Post-mining land be rendered usable for agricultural/forestry purposes and shall be handed over to the respective State Government, as specified in the Guidelines for Preparation of Mine Closure Plan, issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.

(viii) Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay soil/suitable material.

(ix) 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 3<sup>rd</sup> November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, alongwith fly ash for external dump of overburden, backfilling or stowing of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.

47

- (x) A separate team for subsidence monitoring and surface mitigation measures shall be constituted and continuous monitoring & implementation of mitigation measures be carried out.
- (xi) Thorough inspection of the mine lease area for any cracks developed at the surface due to mining activities below ground shall be carried out to prevent inrush of water in the mine.
- (xii) Native tree species shall be selected and planted over areas affected by subsidence.
- (xiii) 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.

17

(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'.

(vi) Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.

(vii) Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.

**(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.

MS

- (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 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.

This issue with approval of the competent Authority.

  
(Lalit Bokolia)  
Director

**Copy to:**

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. The Secretary, Department of Environment & Forests, Government of Madhya Pradesh, Secretariat, Bhopal.
3. Principal Chief Conservator of Forests, Head of Forest Force, Madhya Pradesh Forest Department, Satpuda Bhawan, 1<sup>st</sup> Floor, Bhopal.
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 District Collector, Shahdol, Government of Madhya Pradesh
6. Monitoring File/Guard File/Record File.                      8. PARIVESH Portal

  
(Lalit Bokolia)  
Director



