



सत्यमेव जयते

File No.: J-11015/139/2008.IA.II(M)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division



Dated 05/02/2024



To,

Shri Lella Ramachandra Reddy
ODISHA COAL AND POWER LIMITED
Odisha Coal and Power Limited, Zone A, Ground Floor, Fortune Towers, Chandrasekharpur,
Bhubaneswar-751023 , SUNDARGARH, ODISHA, Fortune Towers, 751023
info@ocpl.org.in

Subject: Grant of prior Environmental Clearance (EC) to Manoharpur and Dipside Manoharpur Coal Mine expansion Project (8 MTPA to 16 MTPA)with increase in project area from 977.875 to 1781.591 ha of M/s Odisha Coal and Power Limited located in Villages Manoharpur, Paramanandpur, Kathafali, Ghumudasan, Dulanga, Durubaga, Katarbaga, Laikera and Sarbahal Tehsil Hemgir District Sundargarh (Orissa)-reg

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/OR/CMIN/451362/2023 dated 06/11/2023 for grant of prior Environmental Clearance (EC) to the project under the provision of the EIA Notification 2006-and as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC23A0101OR5425850N
(ii) File No.	J-11015/139/2008.IA.II(M)
(iii) Clearance Type	Mining EC Under 5 Ha
(iv) Category	A
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vi) Sector	Coal Mining
(vii) Name of Project	Manoharpur Opencast Coal Mine Project
(ix) Location of Project (District, State)	SUNDARGARH, ODISHA
(x) Issuing Authority	MoEF&CC
(xii) Applicability of General Conditions	No

3. The proposal is for Environment Clearance of Manoharpur and Dipside Manoharpur Coal Mine Project (Expansion of Manoharpur Coal Mine from 8 MTPA to 16 MTPA with increase in project area from 977.875 to 1781.591 ha of M/s Odisha Coal and Power Limited located in Villages Manoharpur, Paramanandpur, Kathafali, Ghumudasan, Dulanga,

Durubaga, Katarbaga, Laikera and Sarbahal Tehsil Hemgir District Sundargarh (Orissa).

4. Terms of Reference (TOR) for Manoharpur and dip side Manoharpur Coal Mine (Expansion of Manoharpur Coal Mine) of M/s Odisha Coal & Power Ltd., issued by Ministry of Environment, Forest and Climate Change vide letter no. J-11015/139/2008- IA-II(M) Pt. dated 29th April, 2020.

5. Public hearing for the project of 16 MTPA in a project area of 1848.379 ha was held on 23.03.2021 at village Kathafali, Gram Panchayat Durubaga, Tehsil Hemgir, Dist Sundargarh, Odisha under the Chairmanship of Addl. District Magistrate, Sundargarh. Major issues raised in the public hearing include blast vibration, deforestation, pollution control measures, Land Acquisition and R&R, employment opportunity, infrastructure development, etc.

6. Manoharpur and Dip-side Manoharpur coal blocks are contiguous blocks having common boundary. The Blocks were earlier allotted to Odisha Power Generation Corporation Ltd. (OPGC) in 2007 but in the year 2014, Hon'ble Supreme Court of India had cancelled 204 coal blocks allocated to different Companies/ Organisations including the Manoharpur and Dip-side of Manoharpur coal blocks of OPGC. OPGC had obtained Environmental Clearance for Manoharpur Coal block vide letter no. J-11015/139/2008-IA.II (M) dated 21.02.2014 for the project area of 977.875 ha with the production capacity of 8 MTPA. After cancellation of coal blocks, these two coal blocks have been allotted to OCPL in August, 2015 by Ministry of Coal for supply of coal exclusively to the power plants (4x660 MW) of OPGC. The Environmental Clearance granted to OPGC were transferred and vested in favor of OCPL by MoEF&CC vide letter dated 30.12.2015. Forest clearance (Stage-I & II) for 276.655 Ha of Manoharpur Coal Block has already been obtained from MoEF&CC vide letter no. F.No.8- 63/2011-FC dated 20.08.2014 by the prior allottee (OPGC) and the same as transferred and vested to OCPL by MoEF&CC (GoI) vide letter dated 30.11.2015. Manoharpur Coal Mine is in Operation since 2019.

7. Manoharpur coal block was explored and Dip-side Manoharpur coal block was unexplored at the time of allocation to OCPL by Ministry of Coal. Dip side block has later been explored in detail and continuation of occurrence of coal seams towards west upto the final block limit of the dip side of Manoharpur Block has been observed. Thus, in view of these and as suggested by Technical members of Standing Committee, MoC, a combined Mining Plan including Mine Closure Plan (Rev-III) has been prepared which was approved by MoC vide letter dated 26.09.2019 and subsequent corrigendum dated 1.10.2019 to carry out the mining operation in Manoharpur Coal block and subsequently in Dip side Manoharpur Block with the production capacity of 16 MTPA (PRC).

8. The project area is covered under Survey of India Toposheet No. F44 R13 and F44 R9 and is bound by the geographical coordinate's ranging from Latitude 21° 55' 52.168" to 21° 58' 16.871" N and Longitudes 83° 44' 41.287" to 83° 47' 42.750" E.

9. Coal linkage of the project is proposed for OPGC expansion power plant for unit 3 & 4 (2 x 660 MW) and unit 5 & 6 (2 x 660 MW) when it comes up. The surplus coal after meeting the EUP requirement will be sold / utilized as per the government directives and / or in accordance with the Clause no. 8 of Allotment Agreement and hence the surplus coal may be sold to any consumer from the pit head or nearest railway siding via road or road cum rail mode.

10. 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. The project site is located at 5.2 km away from SPA Ib Valley as certified by Odisha SPCB vide their letter dated 20.11.2023. There are no National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones falling within 10 km boundary of the project.

11. As per approved Mine Plan, total ML area is 1781.591 ha and for development of colony, 66.788 Ha (outside ML) is proposed with 9.439 ha of forest land. Total project area is 1848.379 Ha including ML area (1781.591) and outside ML (66.788 Ha). 618.644 ha of forest land has been reported to be involved in the project area. Approval under the Forest (Conservation) Act, 1980 for diversion of 276.655 ha of forest land for non-forestry purposes, Stage I and Stage II Forest Clearance has already been obtained vide letter no F.No.8-63/2011-FC dated 17.10.2012 and F.No.8-63/2011-FC dt. 20.08.2014, respectively. For the balance forest area i.e. 345.401 Ha was filed for diversion. On verification of land records by revenue & forest dept., the diversion proposal was submitted for an area of 342.87 ha, which has been appraised in FAC meeting held on 18.12.2023. Stage I FC for balance forest land (342.87 Ha) has been granted vide no 08-63/2011-FC Vol (I) dated 29.12.2023.

12. Total geological reserve reported in the mine lease area is 978.4706 MT and 664.239 MT are mineable reserve. Out of total mineable reserve of 664.239 MT, 636.309 MT are available for extraction. Percent of extraction is 65 %. Fourteen coal seams with thickness ranging from 4 m to 42 m are workable. Grade of coal is G14 (Major grade varies from G12-G15), stripping ratio 2.75:1, while gradient is 1:10. Method of mining operation is envisaged by opencast method. Life of mine is 44 years. The project has two OB dumps (OB dump-1 & 2) inside lease in an area of 269.510 ha with maximum height 90 m & 120 m and 15.42 Mm³ & 152.50 M³ of OB, respectively. Total quarry area is 1234.44 ha out of which back-filling will be done in 854.40 ha, 327.54 ha mine slope will be technically reclaimed while final mine void will be created in an area of 52.5 ha with a water body of depth of 180-410 m. During mine closure period upper tier of internal dump will be re-handled and brought back to the unfilled void area. Thus, the void depth will be reduced to 60-90 m (sloping towards dip side). The ground water level has been reported to be varying between 1.5 m to 10.45 m during pre-monsoon and between 0.5 m bgl to 8.30 m during post-monsoon. Total water requirement for the project is 3920 KLD (potable water 390 KLD & industrial water 3530 KLD). The industrial water requirement does not include around 1200 KLD of water provisioned for coal washery purpose, if washery is designed in future.

Land Use Details of Mine

The land usage pattern of the project is as follows:

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

Sl. No.	Classification of Land	Area Inside the ML	Area outside ML	Total
1	Agricultural Land	502.810	28.317	531.127
2	Forest Land	609.205	9.439	618.644
3	Grazing Land	67.221	0	67.221
4	Water Body	29.989	0	29.989
5	Settlement	18.47	0	18.47
6	Others (Barren Land)	553.896	29.032	582.928
		1781.591	66.788	1848.379

Post Mining:

Sl. No.	Land use during mining	Land Use (Post Closure)				Total
		Plantation	Water body	Public/ Company Use	Undisturbed Land	
1.	External Dump	269.51				269.51
1.	Top soil Dump	10.84				10.84
3.	Excavation Area	1181.94	52.5			1234.44
4.	Road	65.946		89.22		155.166
5.	Built up area					
6.	Green Belt	50.0				50.0
7.	Undisturbed/ Mining Right for UG				8.095	8.095
8.	Safety Zone/ Rationlisation area	16.00				16.00
9.	Diversion/ below river/ nala/ canal		5.36			5.36
10.	Water body (Water Reservoir near pit)		8.56			8.56
11.	Staff Colony	29.673		37.115		66.788
12.	Garland Drains		6.77			6.77
13.	Embankment	13.0		3.85		16.85
		1636.909	73.19	130.185	8.095	1848.379

13. Total cost of the project as on date is about Rs. 3472 Crores. Cost of production is Rs 620.74 per tonne @100% level of production. CSR cost will be 2% of the average profit of three years as per Companies Act, R&R cost is Rs. 215 crore.

Environment Management Cost is Rs. 31.84 crore (capital) and Rs 24.14 Crore per year (recurring). Permanent employment generation from the complete project is 205 (nos).

14. Above proposal for EC was considered by the EAC in the meeting held during 3-4 March 2022, 16-17th November, 2023 and 21-22 December, 2023. The EAC, after deliberating the instant proposal at a length and getting proper justification/reconciliation of Mine lease area, Mine plan area, Forest land & its clearances and clarification upon the SPA area and discussions, Committee advised the PP to restrict all Mining activity within the 1781.591 ha i.e. Mine Lease only. The area lying outside the ML area shall be managed separately by the PP for colony or other purposes. After detailed deliberations, EAC has **recommended** the proposal for grant of Environmental Clearance alongwith specific/standard EC conditions to Manoharpur and Dipside Manoharpur Coal Mine Project for enhancement in production capacity 8 MTPA to 16 MTPA with increase in Mine lease area from 977.875 to 1781.591 ha

15. The MoEF&CC has examined the proposal in accordance with the provisions contained in the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and based on the recommendations of the EAC hereby accords Environment Clearance for the instant proposal to M/s Odisha Coal and Power Limited for an expansion of Manoharpur and Dipside Manoharpur Coal Mine Project (8 MTPA to 16 MTPA) with increase in Mine lease area from 977.875 to 1781.591 ha located in Villages Manoharpur, Paramanandpur, Kathafali, Ghumudasan, Dulanga, Durubaga, Katarbaga, Laikera and Sarbahal Tehsil Hemgir District Sundargarh (Odisha), under the provisions of EIA Notification, 2006 and as amended thereof subject to compliance of the Specific and Standard EC conditions as given in **Annexure (1)**

16. 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.

17. The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.

18. The PP is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.

19. 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.

20. 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. 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.

21. 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.

22. General Instructions:

- The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC website where it is displayed.
- 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 must display the same for 30 days from the date of receipt.

- The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing 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.
- Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.
- 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.
- The Regional Office of this MoEF&CC 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.

23. This issue with an approval of the Competent Authority.

Copy To

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. Monitoring File /Record File
3. The Additional Principal Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, A-31, Chandershekharpur, Bhubaneswar- 751023 (Odisha).
4. The Secretary, Department of Environment & Forests, Government of Orissa, Secretariat, Bhubaneswar (Odisha).
5. The Chairman, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
6. The Chairman, Odisha State Pollution Control Board, Parivesh Bhawan, A/118, Nilkanthanagar, Unit VIII, Bhubaneswar - 751012 (Odisha).
7. District Collector, Sundargarh Government of **Odisha**.

Annexure 1

Specific EC Conditions for (Mining Of Minerals)

1. Specific Conditions:

S. No	EC Conditions
1.1	<i>PP to install 1 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.</i>
1.2	<i>PP to maintain the transportation road properly to minimize the dust emission. PP to also develop pucca/concrete roads by seeking consent from the panchayat with widening of roads especially roads inter linking the villages within the study area of 10 km radius buffer zone.</i>

S. No	EC Conditions
1.3	<i>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.</i>
1.4	<i>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.</i>
1.5	<i>PP to provide bio toilets to the villages located within the study areas within 1 year from the grant of this EC.</i>
1.6	<i>Persons of nearby villages shall be given training on livelihood and skill development to make them employable with its proper records.</i>
1.7	<i>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.</i>
1.8	<i>PP shall conduct third party audit of compliance of EC condition at an interval six months and its report shall be submitted to IRO, MoEF&CC.</i>
1.9	<i>PP shall deploy atleast 20% of overall fleet of dumpers/trucks as electrical or CNG/LNG based dumpers/trucks for transportation of coal/OB etc.</i>
1.10	<i>PP shall obtain CTE/CTO from State Pollution Control Board for 16 MTPA of production capacity.</i>
1.11	<i>PP to implement the CHP, RLS and Merry Go Round (MGR) for 16 MTPA capacity before December, 2026 in time bound manner. Further, feasibility of implementing inpit conveyor system till CHP shall be explored for coal avoiding haul road movement and internal road transportation.</i>
1.12	<i>PP shall comply the partial/non-complied EC conditions highlighted by Ministry's Regional Office and submit its report within six months to IRO.</i>
1.13	<i>PP shall prepare land for grazing purpose and construction of additional water body of same area as in land use plan during pre-mining activity.</i>
1.14	<i>PP should re-handle the OB dump properly by incorporating the mitigation measures for air pollution with budgetary provision and explore the possibility of M-sand in order to re-utilize the OB dump.</i>
1.15	<i>Garia and Lapani stream/nallah shall not be diverted before 15 years. Subsequent changes shall be taken from MoEF&CC for amendment of this condition. All protection measures to protect the streams shall be implemented.</i>
1.16	<i>PP to implement EMP in view of the mining area lying very near to the IB valley declared as SPA in concurrence with state action plan.</i>
1.17	<i>PP shall limit the activities of mining in its mine lease area only i.e. with 1781.591 ha. No OB Dumping and infrastructure activity should be proposed and dumped on forest land.</i>

S. No	EC Conditions
1.18	<i>PP shall submit the status of progressive mine closure activity w.r.t. to ML area already reclaimed (biologically) and proposed area to be completed within 2-3 years.</i>
1.19	<i>PP should share the online data generated from CAAQMS in consultation with state pollution control Board to the CPCB/SPCB.</i>
1.20	<i>PP should strengthen the Environmental cell with qualification having environment engineer's/science degree and by developing dedicated environment laboratory within the Mine lease area within three months accordingly SPCB shall issue the CTO.</i>
1.21	<i>PP should strengthen the toe wall all along the OB dump alongwith the weep holes by cementing it.</i>
1.22	<i>PP shall implement the environmental mitigation plan for villages coming in the mine lease area till R&R is completed.</i>
1.23	<i>PP shall obtain No Objection Certificate from Central Ground Water Authority for extraction of ground water.</i>
1.24	<i>PP shall implement the activities-wise budget for Public Hearing (as mentioned on the para no. 7.3.1 of the EIA-EMP report) and Capital cost, recurring cost (as mentioned on the para no. 6.4.1 & para no 10.5 of the EIA-EMP report). The details of annual expenditure incurred shall be part of report to be submitted to IRO, MoEF&CC. PP needs to include the audited figures against the expenditure and activities to be monitored by through dedicated monitoring mechanism. The maintenance of all activities shall be covered through recurring cost of Public Hearing, and continued as a part of CSR budget.</i>
1.25	<i>PP shall monitor regularly water levels in open dug wells located in village and by establishing Piezometer to ascertain the impact of mining over ground water table and to plan mitigative measures to recharge the area.</i>
1.26	<i>PP shall implement Water distribution system in near villages. A proper water pipeline distribution network shall be devised to meet the demands of farmers related to irrigation and recharging of ponds, wherever required. The water treatment plant to meet the requirement with the start of production.</i>
1.27	<i>PP shall deposit the approved amount as proposed for wildlife conservation plan to the State Govt. Forest & Environment Dept. and further consult with State Biodiversity Authority for its CSR activity.</i>
1.28	<i>Sufficient nos. of fog cannons of atleast 40 mtrs throw shall be installed at coal storage yard, in nearby villages and along the transportation route. Main haul road in the mine shall be provided with permanent water sprinklers, and other roads shall be regularly wetted with water tankers fitted with sprinklers. Also PP shall install Mist Cannon Dust Suppression Systems (distance 80-100 mtrs.) at Coal Stock Yard to suppress the dust particles.</i>
1.29	<i>PP shall develop additional rain water harvesting pond (100 m, width will be 10 m and the depth will be 3 m) as proposed by PP near the villages of stated area in consultation with Gram Panchayat within 1 year. Also, Indicator aquatic species shall be planted in this water bodies to see the environmental quality. PP shall own water bodies/pond currently present in project area, maintain and regularly monitor the quality for its long term protection.</i>

S. No	EC Conditions
1.30	<i>PP shall maintain at least 10 mtrs width tree plantation of broad leaves and wind break/green-shield of about 10 mts height along the boundary of coal storage yard.</i>
1.31	<i>PP to plant additional 100,000 plants with three tier plantation along the transportation route, if not completed, and identified areas with consent to the gram panchayat within two year and plant for remaining within 2 years for their proper growth in additional already committed to plant to plantation in 10 ha of project area.</i>
1.32	<i>PP shall transport the coal by trucks of fleet size 35-40 tons (Payload) and no village road or sensitive location shall be used for transportation of coal.</i>
1.33	<i>PP shall follow the recommendation of subsidence study and monitor the degree of subsidence regularly and shall be submitted to IRO.</i>
1.34	<i>PP shall implement air pollution mitigation measures near the villages, located at coal storage yard within mine lease area.</i>
1.35	<i>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.</i>
1.36	<i>PP shall reduce the carbon footprint after sequestration of CO2. IRO will review the progress of CO2 sequestration. The process of sequestration of CO2 will include the planting trees, by “Developing carbon capture and storage (CCS) technologies” and implementation of renewable energy. Further, PP shall carry out enough plantation to ensure carbon sequestration lost due to deforestation and other fossil fuel based activities.</i>
1.37	<i>PP shall implement Effluent Treatment Plant for wastewater generated from workshop and Sewage Treatment Plan for its colony. No untreated water shall be discharged from mine boundaries to ponds/nallah/river.</i>

Standard EC Conditions for (Mining of minerals)

1. Statutory Compliance

S. No	EC Conditions
1.1	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.
1.2	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
1.3	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. TThe implementation report shall be furnished along with the six-monthly

S. No	EC Conditions
	compliance report (in case of the presence of schedule-I species in the study area).
1.4	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee prior to start/commencement of mining operations/production
1.5	The project proponent shall obtain the necessary permission from the Central Ground Water Authority
1.6	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.
1.7	Permission of power supply to be taken from the concerned authority for meeting power demand of the project site.
1.8	The maximum production or peak production at any given time shall not exceed the limit as prescribed in the EC.
1.9	Validity of Environment Clearance is as per life of the mine mentioned in EC letter or 30 years as per EIA Notification, 2006 and its amendments therein
1.10	All the conditions stipulated in previous Environment Clearance conditions should be strictly complied within certain timeline

2. Air Quality Monitoring And Mitigation Measure

S. No	EC Conditions
2.1	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, PM2.5, SO2 and NOx. 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. The new CAAQMS should be installed with expansion.
2.2	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.
2.3	Transportation of coal, to the extent, if permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun/ Fog cannon etc shall be carried out in critical areas prone to air pollution (with higher values of PM10/PM2.5) 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.

S. No	EC Conditions
2.4	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.
2.5	PP to install solar lights along the road used for transportation of coal to avoid the accidents at night and also seek its maintenance.
2.6	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.
2.7	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.
2.8	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.
2.9	Adequate measures on EMP should be analyzed on annual basis to assess the trend of air pollution data from continuous monitoring station and quarterly report shall be generated and submitted with 6 monthly compliance reports to RO, MoEF&CC.
2.10	Effective safeguard measures for prevention of dust generation and subsequent suppression like regular water sprinkling shall be carried out in areas prone to air pollution. The Fugitive dust emission from all sources shall be regularly controlled by installation of required equipment's. It should be ensured that air pollution level confirm to the standards prescribed by the MOEFCC/CPCB
2.11	Adequate number of Fog canon (mist sprayer) shall be installed to reduce the impact of air pollution at dust generating sources with time bound action plan.
2.12	PP should Install Wind breaker/shield arrangement along the railway siding for reducing the dust propagation in upwind direction.
2.13	Post environmental closure third party monitoring by reputed instituted in air quality, water, land & soil etc shall be carried out and analysed with EMP measures at regular interval. A suitable recommendation in this regard, shall be furnished to IRO, MoEF&CC for compliance. The data used for analysis shall be obtained from continuous AQMS, site specific water regime. Also third party shall analyses the implementation of river diversion, meeting to the requirement of project report.
2.14	Comparison of average monthly temperature of pre and post mine operation after obtaining EC shall be elaborated for post three years and a record to be maintain at regular interval.

3. Water Quality Monitoring And Mitigation Measures

S. No	EC Conditions
3.1	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.
3.2	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.
3.3	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.
3.4	Monitoring of water quality upstream and downstream of river including ponds, lakes, tanks 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.
3.5	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.
3.6	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.
3.7	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).
3.8	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.
3.9	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.

S. No	EC Conditions
3.10	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.
3.11	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.
3.12	Quality of polluted water generated from the operations which include COD and acid mine drainage and metal contamination shall be monitored along with TDS, DO, TSS. The monitored data shall be uploaded on the website of the company as well as displayed at the site in public domain.
3.13	Domestic water shall be providing to the residents/villages which are coming under the zone of influence of the project due to ground water extraction and mining operation by installing adequate number of RO plants with proper supply line and Taps within 2 years
3.14	No obsolete technologies for sewage treatment shall be implemented. Construction of Sewage Treatment Plant with latest technology should be completed within 2 years and treated water shall be reused for plantation. CTE and CTO of STP shall be obtained as per the norms.

4. Noise And Vibration Monitoring And Prevention

S. No	EC Conditions
4.1	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.
4.2	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.
4.3	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.

5. Mining Plan

S. No	EC Conditions
5.1	5- Star Rating is mandatory to obtaine certification as per guidelines of Ministry of Coal

S. No	EC Conditions
5.2	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
5.3	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).
5.4	No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980.
5.5	Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.
5.6	PP shall adopt mining method by preferably using surface miners for the project and silo loading through in-pit conveyor should be adopted
5.7	Transportation of coal till Railway Siding shall be developed to avoid transportation through Road

6. Land Recalvation

S. No	EC Conditions
6.1	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).
6.2	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.
6.3	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.
6.4	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.
6.5	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

S. No	EC Conditions
	<p>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.</p>
6.6	<p>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.</p>
6.7	<p>Top soil should be stored separately at marked area and necessary vegetation shall be maintained to avoid any entrainment of dust</p>
6.8	<p>Progressive backfilling of mine and progressive reclamation of OB dump shall be done</p>
6.9	<p>Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles</p>
6.10	<p>PP shall explore the possibilities of utilization of OB material for different purposes (in construction of roads/ manufacture of artificial sand, aggregates/ use for farmers etc.)</p>
6.11	<p>All approach roads to mine and all other roads which are in regular use should be black topped. The maintenance of road shall be done by PP in collaboration with state government</p>
6.12	<p>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</p>

7. Green Belt

S. No	EC Conditions
7.1	<p>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.</p>
7.2	<p>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. And Plantation should also be carried out in nearby area with consent of forest</p>

S. No	EC Conditions
	department and gram panchayat within 10 km radius with its proper maintenance

8. Public Hearing And Human Health Issues

S. No	EC Conditions
8.1	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 & its RO on six-monthly basis.
8.2	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.
8.3	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.
8.4	Implementation of the time bound 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 time bound 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.
8.5	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'.
8.6	PP to conduct need based assessment survey of the area to for in order to decide the activities to be carried under the CSR and to provide detail of the activity carried out with adequate budgetary provision and time bound action plan.
8.7	PP should conduct epidemiology study to (analysis of the distribution, patterns and determinants of health and disease conditions in defined populations).
8.8	Permanent Health care facilities of Hospital should be established within 5 km of project boundary for the local people.
8.9	PP must ensure an emergency action plan during pandemic in order to provide assistance to the nearby villages located within the 10 km radius buffer zone (If required)
8.10	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
8.11	PP to take measure for installation of Renewable Energy sources in nearby area falling within 10

S. No	EC Conditions
	km radius
8.12	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
8.13	Adequate facility of drinking water, plantation and other social amenities should be provided to established R&R villages.
8.14	Persons of nearby villages shall be given training on livelihood and skill development to make them employable with its proper records.
8.15	Compensation of the land acquired for the project shall be settled as per the R&R Policy within fixed timeline

9. Corporate Environment Responsibility

S. No	EC Conditions
9.1	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.
9.2	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.
9.3	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.
9.4	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
9.5	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

10. Miscellaneous

S. No	EC Conditions
10.1	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.
10.2	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.
10.3	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.
10.4	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (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.
10.5	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.
10.6	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.
10.7	The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
10.8	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
10.9	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.
10.10	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change.
10.11	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.
10.12	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
10.13	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
10.14	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The

S. No	EC Conditions
	project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
10.15	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.

