



सत्यमेव जयते

File No.: EN/T-II-1/149/2024
Government of India
Ministry of Environment, Forest and
Climate Change
(Issued by the State Environment
Impact Assessment
Authority(SEIAA), WEST BENGAL)



Dated 13/09/2024



To,

ARABINDA MAHANTY
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Subject: Grant of prior Environmental Clearance (EC) to the proposed Mining Project under the provisions of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application submitted to SEIAA vide proposal number SIA/WB/MIN/479313/2024 dated 18/06/2024 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.	EC24C0108WB5304945N
(ii) File No.	EN/T-II-1/149/2024
(iii) Clearance Type	Mining EC Under 5 Ha
(iv) Category	B2
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vii) Name of Project	Rapkata Smoky Quartzite Block
(ix) Location of Project (District, State)	PURULIA, WEST BENGAL
(x) Issuing Authority	SEIAA
(xii) Applicability of General Conditions	No

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-2(Part A, B and C)/ EIA & EMP Reports were submitted to the SEIAA for an appraisal by the SEIAA under the provision of EIA notification 2006 and its subsequent amendments.

4. The above-mentioned proposal has been considered by SEIAA in the meeting held on 29/08/2024. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed from the

PARIVESH portal by scanning the QR Code above.

5. Brief on the salient features of the project as submitted by the project proponent in Form 1 (Part A and B) in the reports are as follows:

This is a proposal for Rapkata Smoky Quartzite Block over an area 1.097 ha (2.710 acres) at Plot No. 518, JL No. 86, Mouza – Rapkata, PS – Balarampur, Dist – Purulia, West Bengal.

The project is falling within the DSR potential zone code PUR_BS_ZONE_34.

As required under the West Bengal Minor Mineral Concession Rules, 2016, the PP got a composite ‘Mining Plan along with Progressive Mine Closure Plan’ for quartz mining at the site prepared by an RQP. The Plan has been approved by the State Government on 21.05.2024 and the approved plan has been uploaded at the PARIVESH portal by the PP.

The project proponent has uploaded the copy of valid Letter of Intent from the competent authority, pre-feasibility report for the proposed project, non-cluster certificate from the competent authority. **The mine block is not forming cluster with any adjacent mining lease.**

Name of the Project / Mining Lease	The ‘Rapkata Smoky Quartzite Block’
Address of the Project / Mining Lease	Rapkata Smoky Quartzite Block is located in Mouza Rapkata, J.L. No.: 86, Plot no.: 518, P.S: Balarampur, District: Purulia, State: West Bengal. The area falls under Toposheet no. 73I/8 in Survey of India maps.
Project Area	1.097 ha (2.710 acres) proposed ML area
Greenbelt Area	0.362 ha (33% of the lease area)
Total tree will be planted	905
Water requirement	The requirement of water for drinking and mining purposes would be about 3.72 KLD Dust suppression: 2.40 KLD (for 0.04 km) Plantation/ greenbelt: 0.91 KLD Domestic purposes: 0.41 KLD
Source of Water	Water supply from tankers
Manpower	41 persons
Expected Cost of the Project	Rs 3.23 Crores

The production details as mentioned in the Mining Plan is given below :-

INDICATED RESOURCE UNDER CATEGORY 332				
Total Area(m2) (A)	Average thickness(m) (B=(Thickness of Quartzite BH1+ thickness of Quartzite in BH2))/2)	Volume (m3) C=AXB	T.F (D)	Quartzite (Tonnes) (E=CDX)
10970	(36.6+36.6)/2=36.6	401502	2.81	1128220.62
INDICATED RESOURCE UNDER CATEGORY 333				
Total Area(m2) (A)	Average thickness(m)	Volume (m3)	T.F	Resource (Tonnes)
10970	20	219400	2.81	616514
Total Geological Resource				1744734.62

Year	RL		Average Area (m2)	Height (m)	VOLUME (m3)	Mineable Reserves (mT)	MINING LOSS	EXTRACTABLE RESERVE (mT)	EXTRACTABLE RESERVE (MT)	TYPE	TOTAL (mT)
	From (m)	TO (m)									
1st Year	267	264	6608.638	0.5	3304.32	-	-	-	-	Top soil	31824.90
	267	264	6608.638	2.5	16521.62	-	-	-	-	OB	
	264	258	1926.12	6	11556.72	32474.38	-	31824.90	-	Qtz	
2nd Year	264	258	3356.854	6	20141.1255	56396.56	2%	55464.63	0.032	Qtz	55464.63
3rd Year	258	252	3046.371	6	18278.223	51361.81	2%	50334.57	0.055	Qtz	50334.57

4th	258	252	863.2798	6	5179.6788	14554.90	2%	14263.8	0.05	Qtz	58230.31
Year	252	246	2660.96	6	15965.7618	44863.79	2%	43966.51	0.014	Qtz	
5th	246	240	1558.915	6	9353.4885	26283.30	2%	25757.64	0.044	Qtz	46433.72
Year	240	234	859.899	6	5159.394	14497.90	2%	14207.94	0.026	Qtz	
	234	228	391.4675	6	2348.805	6600.14	2%	6468.139	0.014	Qtz	
Total					107809.11	247232.78		242288.13	0.006		242288.13

As per the Mining Plan, the boundary coordinates in UTM and geographical coordinate system are given below :-

Block Corner Point	Latitude (Decimal degrees)	Longitude (Decimal degrees)	Latitude (Degrees minutes seconds)	Longitude (Degrees minutes seconds)
A.	23.054208	86.235057	23°03'15.1488"N	86°14'06.2052"E
B.	23.054019	86.235342	23°03'14.4684"N	86°14'07.2312"E
C.	23.053438	86.234983	23°03'12.3768"N	86°14'05.9388"E
D.	23.053441	86.234885	23°03'12.3876"N	86°14'05.7264"E
E.	23.0534	86.234885	23°03'12.24"N	86°14'05.586"E
F.	23.053521	86.23419	23°03'12.6756"N	86°14'03.084"E
G.	23.053735	86.234282	23°03'13.446"N	86°14'03.4152"E
H.	23.053785	86.234257	23°03'13.626"N	86°14'03.3252"E
I.	23.054167	86.234479	23°03'15.0012"N	86°14'04.1244"E
J.	23.053945	86.234838	23°03'14.202"N	86°14'05.4168"E

6. State Level Environment Impact Assessment Authority (SEIAA), West Bengal examined the proposal and also perused recommendations of the State Level Expert Appraisal Committee (SEAC). After due consideration of the project proposal, and after considering the recommendations of the State Level Expert Appraisal Committee (SEAC), the State Level Environment Impact Assessment Authority accords Environmental Clearance to the project as per provisions of the EIA notification no. S.O. 1533 (E) dt. 14th September, 2006 of Ministry of Environment & Forests, GOI and the subsequent amendments, on the basis of above mentioned features along with other details submitted to SEIAA subject to strict compliance of the terms and conditions as given in Annexure (1)
7. The Ministry reserves the right to stipulate additional conditions, if found necessary.
8. 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.
9. The PP is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.
10. **Validity of EC will be for 5 years. However, the PP may apply for extension of EC with revised mining plan before expiry of 5 years hence.**
11. General Instructions:
 1. 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 SEIAA website where it is displayed.
 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 must display the same for 30 days from the date of receipt.
 3. 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.

4. 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.
5. 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.
6. The Regional Office 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.
7. Any appeal against this EC 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.

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

Annexure 1

Specific EC Conditions for (Mining Of Minerals)

1. Standard Conditions:-

S. No	EC Conditions
1.1	<p>I. Statutory compliance</p> <p>i. This Environmental Clearance (EC) is subject to orders / judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.</p> <p>ii. The Project proponent complies with all the statutory requirements and judgement of Hon'ble Supreme Court dated 2nd August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors. before commencing the mining operations.</p> <p>iii. The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgement of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.</p> <p>iv. This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from Ministry of Environment, Forest & Climate Change, (MoEF&CC) subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.</p> <p>v. This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.</p> <p>vi. Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board/Committee.</p> <p>vii. The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars</p>

S. No	EC Conditions
	<p>issued by Directorate General Mines Safety (DGMS) and Indian.</p> <p>viii. The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.</p> <p>ix. The Project Proponent shall follow the mitigation measures provided in MoEF&CC's Office Memorandum No. Z-11013 / 57 / 2014-IAJI (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".</p> <p>x. The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA/SWID for withdrawal of ground water for the project.</p> <p>xi. A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.</p> <p>xii. State Pollution Control Board / Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office / Tehsildar's Office for 30 days.</p> <p>xiii. The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board / Committee and web site of the Ministry of Environment, Forest and Climate Change (www.environmentclearance.nic.in). A copy of the advertisement may be forwarded to the concerned MoEF&CC Regional Office for compliance and record.</p> <p>xiv. The Project Proponent shall inform the MoEF&CC / State Environment Impact Assessment Authority (SEIAA) for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.</p> <p>II. Air quality monitoring and preservation</p> <p>i. The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2; CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016 / 20 / 90 / PCUI, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.</p> <p>ii. Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metaled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments / machineries and preventive maintenance: Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC / Central Pollution Control Board.</p> <p>iii. The PP is required to undertake dust suppression by water sprinkling immediately after the drilling and blasting operations and workers would be allowed to work only after subsidence of dust in the area.</p> <p>III. Water quality monitoring and preservation</p> <p>i. In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA/SWID. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA/SWID and MoEF&CC/SEIAA is in place before such mining</p>

S. No	EC Conditions
	<p>operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.</p> <p>ii. Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.</p> <p>iii. Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority / State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.</p> <p>iv. The Project Proponent shall undertake regular monitoring of natural water course / water resources / springs and perennial nallahs existing / flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby / adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and / or alteration be made to water bodies during mining operations without justification and prior approval of MoEF&CC / SEIAA. The monitoring of water courses / bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director/ SWID, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.</p> <p>v. Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012 / 1 / 2006-IAJI (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.</p> <p>vi. Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area consultation with Central Ground Water Board / State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEF&CC/SEIAA annually.</p> <p>vii. Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.</p> <p>viii. The water balance / water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC/SEIAA and State Pollution Control Board / Committee.</p> <p>IV. Noise and vibration monitoring and prevention</p>

S. No	EC Conditions
	<p>i. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.</p> <p>ii. 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 / night hours.</p> <p>iii. The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The Project Proponent shall be held responsible in case it has been found that workers / personals / laborers are working without personal protective equipment.</p> <p>V. Mining plan</p> <p>i. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.</p> <p>ii. The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines / Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules / Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change / SEIAA for record and verification.</p> <p>iii. The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office and SEIAA.</p> <p>VI. Land reclamation</p> <p>i. The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines / circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil / OB dumps. The topsoil shall be used for land reclamation and plantation.</p> <p>ii. The reject / waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines / circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.</p> <p>iii. The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.</p> <p>iv. The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on</p>

S. No	EC Conditions
	<p>slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer / compactors thereby ensuring proper filling / leveling of dump mass. In critical areas, use of geo textiles / geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.</p> <p>v. The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC/SEIAA.</p> <p>vi. Catch drains, settling tanks and ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil / OB / Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah / River / Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains / sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.</p> <p>vii. Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments / silt material. The sedimentation pits / sumps shall be constructed at the corners of the garland drains,</p> <p>viii. The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.</p> <p>ix. Apart from possessing a valid lease the proponent shall obtain all other necessary permissions before commencement of any mining or allied activity at the lease hold area.</p> <p>VII. Transportation</p> <p>i. No Transportation of the minerals shall be allowed in case of roads passing through villages / habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village / rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.</p> <p>ii. The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.</p> <p>VIII. Green Belt</p> <p>i. The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted</p>

S. No	EC Conditions
	<p>by the Ministry irrespective of the stipulation made in approved mine plan.</p> <p>ii. A Progressive Greenbelt Plan should be prepared. The PP has to do tree plantation in an area equivalent to 33% of the lease area @2500 trees / ha. PP will complete the plantation in safety zone with 4-5 ft. tall seedlings before starting the mining activity.</p> <p>iii. The Project Proponent shall carryout plantation / afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department / Agriculture Department / Rural development department / Tribal Welfare Department / Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.</p> <p>iv. The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded / protected against felling and plantation of such trees should be promoted.</p> <p>v. The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt. and implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.</p> <p>IX. Public hearing and human health issues</p> <p>i. Regular medical check up of the workers should be done. Chest X-ray (PA View) and pulmonary function test of all workers should be done at least once in six months. The report along with comments of the medical officer should be submitted in the six monthly compliance report.</p> <p>ii. Workers exposure to dust (average of at least five consecutive days) should be monitored along with silica content of the dust once in six months and should be submitted along with six monthly compliance report.</p> <p>iii. Workers should use Personal Protective Equipment (PPE) equipment during the work.</p> <p>iv. The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial / preventive measures be taken. A status report on the same may be sent to MoEF&CC Regional Office and DGMS on half-yearly basis.</p> <p>v. The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.</p> <p>vi. The Proponent shall carry out Occupational health surveillance which be a part of HRA and</p>

S. No	EC Conditions
	<p>include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium-Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).</p> <p>vii. The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 - 24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1),Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEF&CC/SEIAA annually along with details of the relief and compensation paid to workers having above indications.</p> <p>viii. The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.</p> <p>ix. Project Proponent shall make provision for the housing for workers / labors or shall construct labor camps within / outside (company owned land) with necessary basic infrastructure / facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.</p> <p>x. The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry /SEIAA along with District Administration.</p> <p>X. Environment Management Plan (EMP)</p> <p>i. The project proponent should submit the proposed EMP on a six monthly basis. The Office Memorandum issued by the MoEF & CC vide F. No. 22-65/2017-IA.III dated 30.09.2020 should be strictly followed. The activities proposed for EMP shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC / SEIAA annually along with audited statement.</p> <p>ii. Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEF&CC and its concerned Regional Office and SEIAA.</p> <p>iii. Needs of the locality shall be assessed and the social part of the EMP shall be undertaken as stipulated by MoEF&CC Office Memorandum F. No. 22-65/2017.IA.III dated 30.09.2020. Beneficiary of the social component of EMP should be identified and to be displayed at site. Need based activities form a part of the EMP as given in Annexure2. The PP shall submit geo-tagged photographs regarding the implementation of need based activities with actual expenses</p>

S. No	EC Conditions
	<p>incurred. The need based activities and plantation will have to be implemented within first two years of starting of mining operation. Photographic evidence of the activities and relevant bills/vouchers are to be given in 6 monthly compliance report.</p> <p>XI. Miscellaneous</p> <p>i. The validity of EC will be for 5 years. However, the PP may apply for extension of EC with revised mining plan before expiry of 5 years hence.</p> <p>ii. The project proponent should obtain land conversion certificate for the entire project from the competent authority before starting construction activity.</p> <p>iii. The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC and SEIAA.</p> <p>iv. The Project Authorities should inform to the Regional Office and SEIAA regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.</p> <p>v. The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEFCC & its concerned Regional Office/SEIAA, Central Pollution Control Board and State Pollution Control Board.</p> <p>vi. A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC and SEIAA.</p> <p>vii. The concerned Regional Office of the MoEF&CC, SEIAA, SEAC and WBPCB shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC, SEIAA, SEAC and WBPCB officer(s) by furnishing the requisite data / information / monitoring reports.</p> <p>XII. Additional Conditions imposed by SEAC :</p> <p>Following should be submitted along with the six monthly compliance report :-</p> <p>1) The Proponent shall prepare a dust and noise minimization plan with adequate details. Care should be taken for prevention of occupational health issues of the workers. Amenities like personal protective equipments (PPEs) should be provided for them.</p> <p>2) A post closure long-term vegetative stabilisation program should be submitted along with the six-monthly compliance report.</p> <p>3) The PP has to do tree plantation in an area equivalent to 33% of the lease area @2500 trees / ha within first two years from the starting of the mining operation. If any tree (defined as per tree rules 2007) has to be felled, 5 times of the felled trees should be planted as compensatory plantation; the land for such plantation should be marked.</p> <p>This may be done with prior approval of the local self governing bodies. If no public land is available for the purpose the Project Proponent shall arrange for land with his personal means. To enhance success/ survival rate the plantation shall be attempted during the first two years of the project life and the plantation so done shall be taken care of during the rest of the project life.</p> <p>4) Monitoring of PM10, PM2.5 and its SiO2 (free silica) content should be done along with noise levels.</p> <p>5) Dust suppression by sprinkling water should be adopted specially after dusty operations like drilling, blasting etc.</p> <p>6) Year-wise excavation schedule showing breakup of pay-mineral and waste rock may be clearly drawn up and areas may be demarcated for waste dumping. Site for intermediate stockpiling of the mineral may also be clearly demarcated and show in the surface plan.</p> <p>7) As far as practicable the waste rock to be produced from the mine may be dumped in the existing pit-void adjacent to/ within the lease hold boundary. Any outside the pit dumping should be temporary in nature. All waste rock dumped outside the pit may be rehandled and backfilled in the mined-out area.</p> <p>8) The proponent shall review the Progressive Mine Closure Plan every two years from the date of</p>

S. No	EC Conditions
	<p>opening of the mine and shall submit the same to the officer authorised by the State Government in this behalf, for its approval under the West Bengal Minor Mineral Concession Rules, 2016. In the event of the progressive mine closure being not approved, or not deemed to be approved, the mining activities shall be discontinued.</p> <p>9) One year prior to the proposed closure of the mine the proponent shall submit a Final Mine Closure Plan to the officer authorised by the State Government in this behalf, for approval under the West Bengal Minor Mineral Concession Rules, 2016.</p> <p>10) The project proponent shall ensure that the protective measures contained in the Mine Closure Plan referred to hereinabove including the reclamation and rehabilitation work are carried out in accordance with the approved Mine Closure Plan or with such modifications as are approved by the officer authorised by the State Government in this behalf under the West Bengal Minor Mineral Concession Rules, 2016.</p> <p>11) In addition to regular submission of environmental compliance reports as required under the EIA Notification, 2006, the proponent shall submit to the officer authorised by the State Government in this behalf, a yearly report before 1st of July every year setting forth the extent of protective and rehabilitative works carried out as envisaged in the approved Mine Closure Plan, and if there is any deviation, reasons thereof.</p> <p>12) For the purpose of carrying out mining operation in the area, the proponent shall furnish financial assurance. The amount of financial assurance shall be as laid down in the West Bengal Minor Mineral Concession Rules, 2016. The financial assurance may be in any of the forms referred to in the said Rules.</p> <p>13) Effects of blasting to the nearby localities should be examined and remedial plan should be in line with approved mine plan and as per rules of Mine Safety Authority.</p> <p>14) Needs of the locality may be assessed and a social part of the EMP should be undertaken as stipulated by MoEF&CC.</p> <p>15) The unit should strictly abide by The West Bengal Trees (Protection and Conservation in Non-Forest Areas) Rules, 2007. If any tree is cut, five times compensatory plantation should be provided.</p>

Standard EC Conditions for (Mining of minerals)

1. Statutory Compliance

S. No	EC Conditions
1.1	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
1.2	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.
1.3	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
1.4	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).
1.5	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,

S. No	EC Conditions
	1974 from the concerned State pollution Control Board/ Committee.
1.6	The project proponent shall obtain the necessary permission from the Central Ground Water Authority
1.7	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.
1.8	Permission of power supply to be taken from the concerned authority for meeting power demand of the project site.
1.9	The maximum production or peak production at any given time shall not exceed the limit as prescribed in the EC.
1.10	Validity of EC will be for 5 years. However, the PP may apply for extension of EC with revised mining plan before expiry of 5 years hence.

2. Air Quality Monitoring And Mitigation Measure

S. No	EC Conditions
2.1	Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO ₂ and NO _x . Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board. Online ambient air quality monitoring station/stations may also be installed in addition to the regular air monitoring stations as per the requirement and/or in consultation with the SPCB
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 sprinkling/rain gun/ Fog cannon /mist sprinkling etc., shall be carried out in critical areas prone to air pollution with higher level of particulate matter all through the coal transport roads, 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.
2.4	Major approach roads shall be black topped and properly maintained.
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	The transportation of coal shall be carried out as per the provisions and route proposed in the approved mining 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 that the impact of sound, dust and accidents could be appropriately mitigated.

S. No	EC Conditions
2.7	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.
2.8	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.
2.9	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.
2.10	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.
2.11	PP should Install Wind breaker/shield arrangement along the railway siding for reducing the dust propagation in upwind direction.
2.12	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.
2.13	A Progressive Greenbelt Plan should be prepared. The PP has to do tree plantation in an area equivalent to 33% of the lease area @2500 trees / ha. PP will complete the plantation in safety zone with 4-5 ft. tall seedlings before starting the mining activity.
2.14	In six-monthly compliance report, at least one ambient air quality monitoring report in the nearest residential area should be submitted.

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-20012/1/2006-1A.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.

S. No	EC Conditions
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	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.
3.7	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
3.8	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
3.9	Industrial waste water from coal handling plant and mine water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder, and as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluent. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic waste water.
3.10	Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
3.11	The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations shall be prepared, considering the presence of any river/rivulet/pond/lake etc., with impact of mining activities on it, and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the provisions of the approved Mining Plan/ EIA-EMP submitted to this Ministry and the same should be done 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.
3.12	The project proponent shall take all precautionary measures to ensure reverian/ riparian ecosystem in and around the coal mine upto a distance of 5 km. A revarian /riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.
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 by installing a RO plant with proper supply line and Taps within 2 years

S. No	EC Conditions
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	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
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	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).
5.4	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).
5.5	Underground work place environmental conditions shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards.
5.6	No mining 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.
5.7	Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.
5.8	Tranportation by Railway Siding shall be developed to avoid transportation by 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	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.
6.3	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.
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	A separate team for subsidence monitoring and surface mitigation measures shall be constituted and continuous monitoring & implementation of mitigation measures be carried out.
6.6	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.
6.7	Native tree species shall be selected and planted over areas affected by subsidence.
6.8	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.
6.9	Apart from possessing a valid lease the proponent shall obtain all other necessary permissions before commencement of any mining or allied activity at the lease hold area.

7. Public Hearing And Human Health Issues

S. No	EC Conditions
7.1	Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.
7.2	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

S. No	EC Conditions
	subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.
7.3	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.
7.4	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.
7.5	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.
7.6	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.
7.7	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'.
7.8	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.
7.9	PP should conduct epidemiology study to (analysis of the distribution, patterns and determinants of health and disease conditions in defined populations).
7.10	Permanent Health care facilities of Hospital should be established within 5 km of project boundary for the local people.
7.11	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)
7.12	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 with time bound action plan
7.13	PP to take measure for installation of Renewable Energy sources in nearby area falling within 10 km radius
7.14	The PP is required to undertake dust suppression by water sprinkling immediately after the drilling and blasting operations and workers would be allowed to work only after subsidence of dust in the area.
7.15	Regular medical check up of the workers should be done. Chest X-ray (PA View) and pulmonary function test of all workers should be done at least once in six months. The report along with comments of the medical officer should be submitted in the six monthly compliance

S. No	EC Conditions
	report.
7.16	Workers exposure to dust (average of at least five consecutive days) should be monitored along with silica content of the dust once in six months and should be submitted along with six monthly compliance report.
7.17	Workers should use Personal Protective Equipment (PPE) equipment during the work.

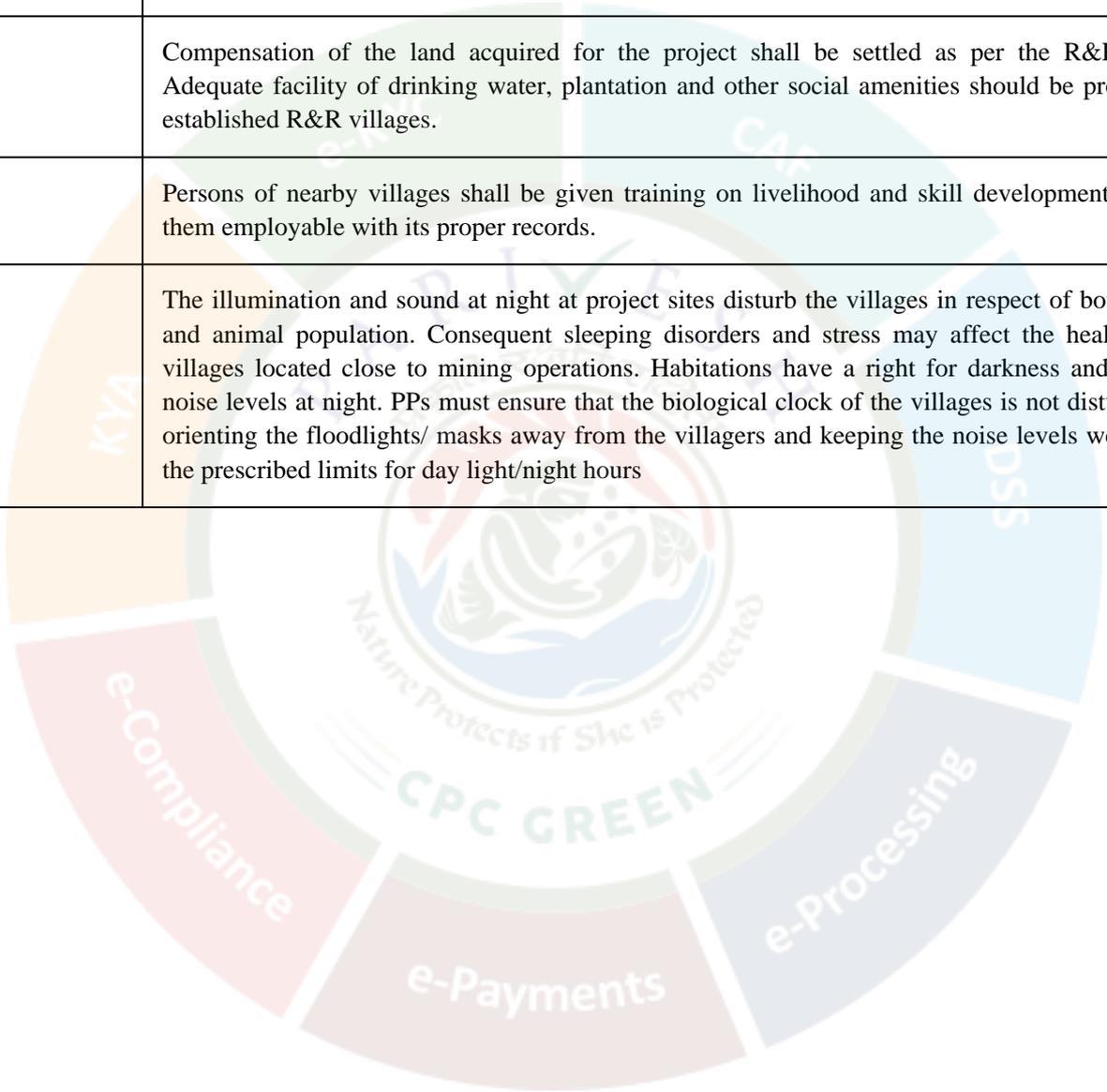
8. Corporate Environment Responsibility

S. No	EC Conditions
8.1	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.
8.2	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.
8.3	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.
8.4	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
8.5	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
8.6	Needs of the locality shall be assessed and the social part of the EMP shall be undertaken as stipulated by MoEF&CC Office Memorandum F. No. 22-65/2017.IA.III dated 30.09.2020. Beneficiary of the social component of EMP should be identified and to be displayed at site. Need based activities form a part of the EMP as given in Annexure2. The PP shall submit geo-tagged photographs regarding the implementation of need based activities with actual expenses incurred. The need based activities and plantation will have to be implemented within first two years of starting of mining operation. Photographic evidence of the activities and relevant bills/vouchers are to be given in 6 monthly compliance report.

9. Miscellaneous

S. No	EC Conditions
9.1	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.
9.2	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.
9.3	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.
9.4	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.
9.5	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.
9.6	The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
9.7	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
9.8	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.
9.9	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
9.10	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.
9.11	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
9.12	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
9.13	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.
9.14	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention &

S. No	EC Conditions
	Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary 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.
9.15	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.
9.16	Compensation of the land acquired for the project shall be settled as per the R&R Policy. Adequate facility of drinking water, plantation and other social amenities should be provided to established R&R villages.
9.17	Persons of nearby villages shall be given training on livelihood and skill development to make them employable with its proper records.
9.18	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



NEED BASED ACTIVITIES FOR LOCAL PEOPLE

Sl. No.	Considerations	CER Cost in Rs.
1.	Health camp and free medicine facilities Location : Ruchap Primary School	16,15,000/-
2.	Educational support Focus : Especially for girls	
3.	Drinking water facilities Location : Ruchap Primary School	
4.	Infrastructure Development Location : Ruchap Primary School	
5.	Roads and drains	
6.	Creation of water body for community use	
7.	Solid Waste Management System and Scientific Studies	
8.	Skill Development Programs	
9.	Embankment Protection	
Total in Rs.		16,15,000/-