

PRADHAN INDUSTRIES

1st June 2018

BAINIBASA GRAPHITE MINE & BENEFICIATION PLANT

Environmental Clearance Letter No. J-11015/16/2017-IA.II(M), Dated 23.04.2018

Stipulated Conditions & Compliances

Sl. No.	Conditions by MoEF & CC, New Delhi	Compliance by Project Proponent
A. SPECIFIC CONDITIONS		
1)	Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court of Odisha and any other Court of Law, if any, as may be applicable to this project.	Agreed and noted
2)	This Environmental Clearance is subject to obtaining requisite NBWL Clearance from the Standing Committee of National Board of Wildlife, if any, applicable for this Mining Project.	Agreed and noted. There is no need to obtain NBWL Clearance as the area doesnot form any part of National Park / Sanctuary/ Protected area and not coming within Eco Sensitive Zone of any National Part / Sanctuary / Protected Area.
3)	No mining activities will be allowed in forest area, if any, for which the Forest Clearance is not available.	Agreed and noted for guidance. Project Proponent has already obtained Stage - 1 Forest Clearance from MoEF & CC, New Delhi vide their letter No.: F. No. 8-58/2017-FC, Dtd. 22.01.2018 (Copy Enclosed as Annexure - 1)
4)	The Project Proponent shall obtain Consent to Operate from the State Pollution Control Board, Odisha and effectively implement all the conditions stipulated therein.	The Project Proponent has already obtained Consent to Establish vide letter No.: 159, Dtd. 17.01.2018 (Copy Enclosed as Annexure - 2) . CTO will be obtained before operation of Mine.
5)	The Proponent should install online Ambient Air Quality Monitoring system and there should be system for display of digital AAQ data within 03 months at least at three locations as per wind direction. Online provisions of pH and turbidity meter at discharge points of STP and ETP and also at water storage ponds in the mining area may be made. Project Proponent should display the result digitally in front of the main Gate of the mine site.	Agreed and noted for guidance.

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6)	The monitoring of PM _{2.5} in the vehicle emission shall be conducted to improve the mine environment and report submitted to the Regional Office of the MoEF&CC.	Agreed and noted for guidance.
7)	PP Shall run an awareness campaign on sanitation for women and utilization of Sanitary Napkin and also to distribute the Sanitary Napkin / pads to the women and provide the training for proper disposal.	Agreed to incorporate under CSR activities and noted for guidance.
8)	PP Shall take necessary permission for mining of sand (minor mineral) generated from the tailings of the beneficiation process of the Graphite ore inside the mining lease and be included in the concession agreement with due approval of the mining plan before selling sand to prospective buyers.	Agreed and noted for guidance.
9)	Implementation of Occupational Hazard Plan on risk based approach and in line with DGMS requirements addressing the hazards from heavy metal such as lead (Pb) found in tailings.	Agreed and noted for guidance. Adequate care and efforts shall be taken by us during the operational phase of the mine to implement the occupational health surveillance programme and to abide by all the rules and regulations / guidelines / circular pertaining to periodical examination as stipulated by the DGMS.
10)	Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial / preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented.	Agreed and noted for guidance.
11)	The prevention measure for burns, malaria and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities.	Agreed and noted for guidance.

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B. STANDARD CONDITIONS		
1)	A Final Mine Closure Plan alongwith details of Corpus Fund shall be submitted to the Ministry of Environment, Forest and Climate Change 5 years in advance of final mine closure for approval.	Agreed and noted for guidance.
2)	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment, Forest and Climate Change.	Agreed and noted for guidance.
3)	No change in the calendar plan including excavation, quantum of mineral and waste should be made.	Agreed and noted for guidance. The calendar plan including excavation, quantum of mineral graphite and waste were projected as per the approved Mining Plan subject to opening of the Mine & Plant.
4)	The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (Surface water and ground water) for the project.	Agreed and noted for guidance. Requisite NOC from CGWA, New Delhi for drawal of Ground Water of 5 M ³ /day and from Govt. of Odisha for Surface Water of 55 KLD had been obtained (Copy of Approvals letters enclosed as Annexure - 3 & 4 respectively)
5)	Mining shall be carried out as per the provisions outlined in mining plan approved by Indian Bureau of Mines (IBM) as well as by abiding to the guidelines of Directorate General Mines Safety (DGMS).	Agreed and noted for guidance.
6)	The lands which are not owned by Proponent, mining will be carried out only after obtaining the consents from all the concerned land owners as per the provisions of the Mineral concession Rules, 1960 and MMDR Act, 1957.	Agreed and noted for guidance.
7)	Digital processing of the entire lease area using remote sensing technique shall be carried out regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment, Forest and Climate Change its Regional Office.	Agreed and noted for guidance.

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8)	<p>The critical parameters as per the Notification 2009 such as PM₁₀, PM_{2.5}, NOx, and SOx etc., in the ambient air within the impact zone, peak particle velocity at 300 m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.</p>	<p>Agreed and noted for guidance.</p>
9)	<p>Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM₁₀ and PM_{2.5} such as haul road, loading and unloading point and transfer points. Fugitive dust emissions from all the sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard. Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board.</p>	<p>Agreed and noted for guidance.</p>

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10)	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The project proponent shall ensure that no natural water course and / or water resources shall be obstructed due to any mining operations. The monitoring shall be carried out four times in a year pre-monsoon (April - May), monsoon (August), Post - monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board.	Agreed and noted for guidance.
11)	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 maintained. The natural water bodies and or streams which are flowing in and around the village, should not be disturbed. The Water Table should be maintained 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 well located in village should be incorporated to ascertain the impact of mining over ground water table.	Agreed and noted for guidance.
12)	Regular monitoring of water quality upstream and downstream of water bodies shall be carried out and record of monitoring data should be maintained and submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority, Regional Director, Central Ground Water Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.	Agreed and noted for guidance.

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13)	Transportation of the minerals by road passing through the village shall not be allowed. A 'bypass' road should be constructed (say, leaving a gap of at least 200 meters) for the purpose of transportation of the minerals so that the impact of sound, dust and accidents could be mitigated. The project proponent shall bear the cost towards the widening and strengthening of existing public road network in case the same is proposed to be used for the project. No road movement should be allowed on existing village road network without appropriately increasing the carrying capacity of such roads.	Minerals Transported inside the lease hold area does not pass through any village. The project proponent shall use the existing RD Road linking the project site to the State Highway - 44 for Minerals transportation outside the lease hold area and this RD Road does not pass through any nearby village.
14)	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 the 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.	Agreed and noted for guidance.
15)	Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers. The material transfer points should invariably be provided with Bag filters and or dry fogging system. In case of Belt conveyors facilities the system should be fully covered to avoid air borne dust; Use of effective sprinkler system to suppress fugitive dust on haul roads and other transport roads shall be ensured.	Agreed and noted for guidance. The PP will ensure water spraying on the Haulage & other Roads in the Mines & Plant as well as in the Material Transfer point in the Plant.
16)	Sufficient number of Gullies to be provided for better management of water. Regular Monitoring of pH shall be included in the monitoring plan and report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.	Agreed and noted for guidance.

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17)	There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.	Agreed and noted for guidance.
18)	The Project Proponent has to take care of gullies formed on slopes. Dump mass should be consolidated with proper filling / leveling with the help of dozer / compactors.	Agreed and noted for guidance.
19)	The reclamation at waste dump sites shall be ecologically sustainable. Scientific reclamation shall be followed. The local species may be encouraged and species are so chosen that the slope, bottom of the dumps and top of the dumps are able to sustain these species. The aspect of the dump is also a factor which regulates some climatic parameters and allows only species adapted to that micro climate.	Agreed and noted for guidance.
20)	The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The overburden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. The maximum height of the dumps shall not exceed 60 m and width 20m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self - sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.	Agreed and noted for guidance. A scheme for top soil management has been prepared and submitted to Regional CCF, Koraput for his approval vide memo no 2490 dated 11.05.2018 of DFO, Rayagada. (Copy enclosed as Annexure - 5) . After approval of Scheme, it will be submitted for reference. Similarly scheme has also been submitted for approval of RCCF, Koraput. After approval it will be submitted for reference.

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21)	<p>Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc., The drains shall be regularly desilted particularly after monsoon and maintained properly. The drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dumps to prevent run off of water and flow of sediments directly into the river and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners to the garland drains and desilted at regular intervals.</p>	<p>Agreed and noted for guidance.</p>
22)	<p>Plantation shall be raised in a 7.5 m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc., by planting the native species in consultation with the local DFO / Agriculture Department and as per CPCB Guidelines. The density of the trees should be around 2500 plants per ha. Green Belt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.</p>	<p>Agreed and noted for guidance. A scheme has been prepared for rejuvenating the Safety Zone belt and has been forwarded by the DFO vide his memo No. 2490, Dtd. 11.05.2018 for RCCF, Koraput. After approval the scheme will be implemented by the User Agency. A copy is attached in Annexure 5.</p>

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23)	Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II(M), dated 29th October, 2014, titled "Impact of mining activities on Habitations - Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area", if any, applicable to the project.	Agreed and noted for guidance. However no habitations are existing within the Leased Hold area.
24)	The Project Proponent shall make necessary alternative arrangements, where required, in consultation with the State Government to provide alternate areas for livestock grazing, if any. In this context, Project Proponent should implement the directions of the Hon'ble Supreme Court with regard to acquiring grazing land. The sparse trees on such grazing ground, which provide mid - day shelter from the scorching sun, should be scrupulously guarded against felling and plantation of such trees should be promoted.	No Gochar Land (Livestock grazing area) exist within the Lease Hold area.
25)	The Project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.	The Project Proponent has already prepared site specific Wildlife Conservation & Protection Plan taking into account to the local endangered flora & fauna in the study area. The scheme has been approved by the PCCF (WL) & Chief Wildlife Warden, Odisha, Bhubaneswar vide their letter No.: 6798/1WL-FC-147/2016, Dtd. 29.07.2017 (Copy enclosed as Annexure - 6)

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26)	As per the Company Act, the CSR cost should be 2% of average net profit of last three years. Hence CSR expenses should be as per the Company Act / Rule for the Socio Economic Development of the neighborhood habitats which could be planned and executed by the Project Proponent more systematically based on the 'Need based door to door survey' by established Social Institutes / Workers. The report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.	Agreed and noted for guidance.
27)	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	All labourers are from Local areas. Hence, no workers stay within the plant / mines lease area after their shift duty. However, Canteen, Toilets, Safe Drinking water facilities are provided within the premises for workers well being.
28)	Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc., should be provided with ear plugs / muffs.	Agreed and noted for guidance.
29)	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422(E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.	Agreed and noted for guidance. The Mine & Plant is working under "Zero Water Discharge Concept" in which no process water will be discharged to near by nallah. In the mineral, effluents like Diesel / Pine Oil is being treated in stage - wise manner, which is in - built to the system and the quantity so applied do not pose any adverse effect.
30)	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.	Agreed and noted for guidance. Workers working in the dusty areas were provided with protective respiratory devices with adequate training imparted to them from time to time.
31)	A separate environmental management cell with suitable qualified personnel should be set - up under the control of a Senior Executive, who will report directly to the Head of the Organization.	Agreed and noted for guidance. The Management has already decided that for EMC they shall engage a suitable officer to look after Environmental Issues and he will directly report to the Management.

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32)	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office.	Agreed and noted for guidance.
33)	The project authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Agreed and noted for guidance.
34)	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest and Climate Change, its Regional Office, Central Pollution Control Board and State Pollution Control Board.	Agreed and noted for guidance.
35)	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.	Agreed and noted for guidance.
36)	A copy of clearance letter will be marked to concerned Panchayat / Local NGO, if any from whom suggestion / representation has been received while processing the proposal.	A copy of the clearance letter was sent to the nearby Gram Panchayats, Zilla Parishad, Addl. District Magistrate vide this office letter No. PI/BAS/EC/92/2018, Dated 28.04.2018 (Copy Enclosed as Annexure - 7)
37)	State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collect's office / Tehsildars' office for 30 days.	The concerned authorities have been provided with a copy of the EC with a request to display the same in their Notice Board for a period of 30 days (Copy Enclosed as Annexure - 8)

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38)	The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in a vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment, Forest and Climate Change at www.environmentalclearance.nic.in and a copy of the same should be forwarded to the Regional Office.	The Project Proponent has published advertisement in two local news papers. The publication has been made in the Nitidin (Odia) and in the The Statesman (English) on 27.04.2018. The same advertisement copies was sent to all concerned authorities vide letter No.:PI/BAS/EC/93/2018, Dated 28.04.2018 (Copy Enclosed as Annexure - 9)