

J-11015/384/2012-IA.II (M)
Government of India
Ministry of Environment, Forest and Climate Change
Impact Assessment Division

Indira Paryavaran Bhavan,
Prithvi Block, 2nd Floor, Aliganj,
Jor Bagh Road, New Delhi-110 003

Dated: 23rd June, 2021

To

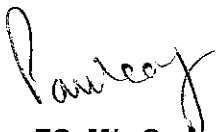
M/s Godawari Power and Ispat Limited

Plot No. 428/2, Phase-I,
Industrial Area, Siltara,
Raipur - 493111 (Chhattisgarh).

Subject: Proposal for Environmental Clearance (EC) for Aridongri Iron Ore mine of M/s Godawari Power and Ispat Limited for enhancement of iron ore production from 1.405 MTPA to 2.35 MTPA (Iron Ore 1.8 MTPA & BMQ 0.55 MTPA), Dolerite OB 3.949 MTPA, Interburden (IB) 3.071 MTPA (Total Excavation 9.37 MTPA) along with setting up of Banded Magnetite Quartzite (BMQ) Beneficiation plant of 0.6 MTPA capacity, 250 TPH Iron Ore Screening Pant with magnetic separator for processing of low grade material and 2 MTPA Dolerite Crushing & Screening Plant in 2 modules of 1 MTPA, within the existing mining lease of 138.96 Ha at Village Kachche, Tehsil Bhanuparatppur, District Uttar Bastar (Kanker), Chhattisgarh [Proposal no: IA/CG/MIN/203724/2021; File No. J-11015/384/2012-IAII(M)] - Environmental Clearance (EC) regarding.

Sir,

This has reference to online proposal no. IA/CG/MIN/203724/2021 dated 17.03.2021 for grant of Environmental Clearance for Aridongri Iron Ore mine for enhancement of iron ore production from 1.405 MTPA to 2.35 MTPA (Iron Ore 1.8 MTPA & BMQ 0.55 MTPA), Dolerite OB 3.949 MTPA, Interburden (IB) 3.071 MTPA (Total Excavation 9.37 MTPA) along with setting up of Banded Magnetite Quartzite (BMQ) Beneficiation plant of 0.6 MTPA capacity, 250 TPH Iron Ore Screening Pant with magnetic separator for processing of low grade material and 2 MTPA Dolerite Crushing & Screening Plant in 2 modules of 1 MTPA, within the existing mining lease of 138.96 Ha at Village Kachche, Tehsil Bhanuparatppur, District Uttar Bastar (Kanker), Chhattisgarh. The mine lease area falls under the Survey of India Toposheet No 64 H/3 and bounded by Latitude 20°24'09.33642"N to 20°25'01.51454"N and longitude



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81°03'33.73692" E to 81°04'13.28954" E and falls in seismic zone-II. The Project Proponent presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "A," as the Mining lease area is more than 100 Ha. Project Proponent applied under Schedule 1(a) Mining of Minerals & 2(b) Mineral beneficiation.

3. The Project Proponent submitted that initially Environmental Clearance was obtained vide letter no J-11015/339/2006-IA.II(M) dated 25th June, 2007 for production capacity of 0.705 Million Tonnes per Annum (7,05,000TPA) over an mine lease area of 106.60 Ha. Further PP submitted that the Environment Clearance for expansion of Iron Ore Mining Lease Area from 106.60 ha. to 138.96 ha and enhancement production capacity from 0.705 to 1.405 MTPA by the amalgamated mine lease area of 138.96ha was accorded by MoEF&CC vide letter no. J-11015/384/2012-IA.II(M) dated 12.12.2014 and subsequently Amendment in Environment Clearance to install an iron ore crusher of 400 TPH with screening facilities within the mine lease area of 138.96ha was accorded by the Ministry vide Letter No. J-11015/384/ 2012-IA.II (M) dated 26th May, 2016.

The Project Proponent submitted that the proposal for Terms of Reference (ToR) vide proposal no: IA/CG/MIN/130756/2019 dated 21.05.2020 and the proposal was considered in the EAC meeting held during 22-24 June, 2020 & 23-25 Sep, 2020 and the Ministry granted ToR vide letter No. J-11015/3 84/ 2012-IA.II(M) dated 13.11.2020. Then, PP applied for Environmental Clearance vide online proposal no. IA/CG/MIN/195912/2020 on 05.02.2021 and submitted the Form2 and EIA report after conducting the Public Hearing. The proposal was considered in the 28th EAC meeting held during 24th -26th February, 2021 wherein the Committee noted that the ToR dated 13.11.2020 was granted for 1 (a) Mining of Minerals and 2(b) Mineral Beneficiation, but PP has applied only for 1 (a) Mining of Minerals for grant of EC. PP has not submitted complete proposal. Therefore, the Committee returned the proposal in the present form and is of the view that the Project Proponent shall apply a fresh with the additional information sought. In view of the above, the PP submitted the revised Form 2 vide proposal IA/CG/MIN/203724/2021 dated 17.03.2021 along with the information sought in 28th EAC meeting and the proposal was considered in the 30th EAC meeting held during 6th -8th April, 2021.

4. The Project Proponent submitted that earlier, there were two leases i.e., 106.60 ha lease & 32.36 ha. leases in Kachche Aridongri Iron Ore Mines. Initially the lease was granted over an area of 106.60ha vide letter no 3- 58/2003/12(2) dated 22.09.2008 and the Lease deed was executed on 30.09.2008 for a period of 20 years i.e., up to



30.09.2028 and PP also submitted that the letter of Intent (LOI) issued by Department of Mineral Resources, Govt of Chhattisgarh in favour of GPIL for 32.36ha vide letter dated 08.10.2010. Lease deed for 32.36 Ha was executed on 12.05.2015 for a period of 50 years i.e. up to 11.05.2065. These two leases were amalgamated in the year 2015. Thus, total lease area of Kachche Aridongri Iron Ore Mines is 138.96 Ha, as on date. Lease deed for amalgamated Kachche Aridongri Iron Ore Lease was executed on 03.09.2015 for a lease area of 138.96 ha. Stating that lease period of grant of mining lease executed between the parties shall be governed by section 8A of the Mines and Minerals (Development and Regulation) (Amendment) Ordinance, 2015 and the period of mining lease shall be extended accordingly up to 30.09.2008 to 29.09.2058 for a period of 50 years for both the leases. PP also submitted that in principle approval/ permission for disposal of Dolerite has been obtained from Department of Mineral Resource, Govt. of Chhattisgarh vide letter no. F 7- 29/2016/12 Naya Raipur Atal Nagar dated 17.08.2020. PP has also submitted that since the mine is facing acute shortage of space for waste dumping, dolerite crushing and screening plant within the existing lease has also been envisaged to be constructed for sizing of Dolerite, which is being mined as overburden waste and presently being dumped in existing waste dump. In principle approval for disposal of Minor Mineral Dolerite, obtained during excavation of Iron Ore, within the Mines has been accorded by Department of Mineral Resources, Chhattisgarh Govt., Nawa Raipur Chhattisgarh vide letter no. F 7-29/2016/12 dated 21.09.2020.

5. The Project Proponent submitted that the Review of Mining Plan & Progressive Mine Closure Plan for an area of 138.96 Ha has been approved by Indian Bureau of Mines, Raipur vide letter no. KNK/FE/MPLN-1227/2019 dated 09.01.2020 for the period 2020-21 to 2024-25. Plan for disposal of Dolerite, generated till end of mine life, has been approved by Mining officer District Uttar Bastar Kanker vide letter no. 1069.KHANIJ/DOLERITE/2020-21 dated 04.02.2021. PP also submitted that additionally, Mining Plan (Quarry Plan) for mining & disposal of Dolerite Overburden (Minor Mineral) obtained during mining of Iron ore from Kachche Aridongri iron ore mine has been approved by Mining Officer District Uttar Baster Kanker vide letter no. 1234/UTH.YO.ANU/Dolerite/2020-21 dated 02.03.2021.

6. The Project Proponent Method of mining will be fully mechanized opencast mining with formation of benches by drilling and blasting. There will be no change in existing method of mining. ROM (iron ore), BMQ and Dolerite produced from the quarry will be transported by 25t/31 t capacity tippers/dumpers up to feed hopper of respective plants. Processed ore from loading silo in mining lease is transported up to end-use plant located at Siltara by tarpaulin covered trucks. PP reported that the total geological reserve is 34.517 Million Tons and total mineable reserve is 21.538 Million Tonnes and that of Banded Magnetite Quartzite (BMQ) is 8.713 Million Tonnes. Thus, total mineable reserve of the deposit is 30.251 Million Tonnes. Rated capacity of the mine will be 2.35

Million Tonnes/annum. Life of the mine is 15.84 years based on present reserve of Iron Ore and BMQ and proposed rated capacity. A total of 11.523 Mm³ of wastes will be generated from entire Kachche Aridongri Iron Ore Mines during the planned period i.e., up to FY 2024-25. Out of this, 7.863 Mm³ waste will be dumped in the proposed waste dump WD1, 0.806 Mm³ waste will be dumped in the proposed backfill BF1 and balance 2.854 Mm³ of waste will be dumped in external dumps WD3, WD4, WD5 & WD6. A total of 27.27 Mm³ of waste will be generated up to conceptual stage. The 11.791 Mm³ of Dolerite dumped in waste dump WD 1 to WD7 from year 2020-21 to conceptual stage has been proposed to be utilized after due crushing & screening. PP submitted the Dolerite management plan vide Lr no GPIL/2020-21/07 dated 06.04.2021.

7. The Project Proponent submitted that the nearest habitation is Kachche (~700 m, E) and Nearest School is Primary School Kachche (~900m, E) from the mine site. Nearest highway is SH 5 (~1 km E).

8. The Project Proponent submitted that the total water requirement in this project site is 414 cu.m (40 cu.m/day is fresh water and 374 cu.m/day is Industrial Consumption). Out of the 374 m³/day Industrial water requirement, 260 m³ /day industrial water requirements have been planned to be met through bore well and balance 114 m³/day from mine water. The mine has already taken the permission from CGWA vide letter no CGWA/NOC/MIN/ORIG/2018/3585 dated 04.09.2018 for drawl of 300 cu.m/day of water through bore wells, Balance 114 cu.m/day water requirement will be met through mine water. PP submitted that renewal application vide File No 21-4/70D/CT/MIN/2017 is under process with CGWA. PP also submitted that maximum water requirement as per earlier EC was 25 KLD which has now increased to 414 KLD as per present proposal. At present only dry crushing and screening is being done at Aridongri Iron Ore Mines. No wet processing of Iron Ore is being done at the Mines. Presently water is only being utilized for drinking purpose and for dust suppression in crushing and screening plant which is within the permitted water quantity. However, in the present proposal, there is a proposal for setting up of a beneficiation Plant of 0.6 MTPA Capacity within the lease for beneficiation of Banded Magnetite Quartzite (BMQ). The beneficiation plant will not only include separate crushing and screening for BMQ but also the grinding, floatation, magnetic separation and filtration etc. of BMQ. Therefore, water demand has increased to cater the water requirement of BMQ Beneficiation plant, dust suppression in BMQ beneficiation plant and drinking water requirement of additional manpower etc.

9. The Project Proponent submitted that a total of 86835 no. of saplings covering an area of 29.40 ha has been already planted in the existing mining lease area which has been duly certified by DFO, Bhanupratappur after site inspection vide letter no. Ma.chi/ /2020/4558, Bhanupratappur dated 14.08.2020. PP also reported that additionally 68,539 no of plants will be planted during the plan period. Budget of Rs. 171.3 lakhs



have been earmarked for Greenbelt development. PP submitted the undertaking vide Lr no GPIL/2020-21/06 dated 06.04.2021 that plantation shall be carried out to achieve 100% survival rate as well as total plantation for 100% survival within existing mining lease area/inside along the mining lease boundary of 138.96 Ha within a period of 6months as per rules.

10. The Project Proponent submitted that Out of the total 138.96 Ha (Amalgamated Lease Area), 127.40 Ha is forest Land and remaining 11.56 Ha is a revenue land. PP has obtained Forest clearance for diversion of forest land of 106.60 ha vide letter no. 8-5/2007-FC dated 04.08.2008 and for 32.36 Ha vide letter no. 8-36/2012-FC dated 19.02.2015. A Certificate "Form C" from District Collector, Uttar Bastar Kanker has been obtained under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006. There is no National Park, Wildlife Sanctuary, Biosphere Reserves, Tiger Reserves, Wildlife Corridors, Critically Polluted Area, etc., within 10 km radius of mining lease area.

11. The Project Proponent reported that there is no Schedule-I species found in the study area. However, a Wildlife Conservation plan with budget of 130 Lakh has been approved by PCCF (Wild Life Management and Bio Diversity Conservation cum Chief Wildlife Warden), Chhattisgarh vide letter KRAMANK/V.PRA/PRABHAND134/2019/2617 ATAL NAGAR dated 30.04.2019.

12. The Project Proponent submitted that one season primary baseline data for ambient air quality, (as per CPCB quality Notification, 2009), water quality, noise level, soil and flora & fauna has been collected during Summer Season (March to May 2020). The pre dominant downwind direction is from SW direction. The concentrations of PM10 and PM2.5 for all the 10 AAQM stations were found between 20.0 to 88.0 $\mu\text{g}/\text{m}^3$ and 16.0 to 48.0 $\mu\text{g}/\text{m}^3$, respectively. The concentrations of SO₂ and NO_x were found to be in range of 4.0 to 22.0 $\mu\text{g}/\text{m}^3$ and 14.0 to 36.0 $\mu\text{g}/\text{m}^3$ respectively. PP also submitted that post project concentration of air pollutants is also well within the prescribed standards of NAAQS. Ambient noise levels were measured at 10 locations in and around the mine site and Noise levels varied from 43.7 to 68.6 Leq dB (A) during day time and from 31.0 to 48.2 Leq dB (A) during night time. The Surface water analysis was carried out at 10 locations and parameters like pH varies from 7.03 to 7.56, Total Hardness varies from 66 to 288 mg/L, Total Dissolved Solids varies from 82.5 to 604 mg/L, Dissolved Oxygen – 4.2 mg/l to 5.8 mg/l etc. are found within the permissible limits. The ground water analysis was carried out at 10 locations and parameters Like pH varies from 6.66 to 9.87, Total Hardness varies from 90 to 436 mg/L, Total Dissolved Solids varies from 180 to 850 mg/L, Chlorides – 12.9 to 197 mg/l etc. are found within the permissible limits.



13. The Project Proponent submitted the District Survey Report approved by the Assistant Mining Officer Uttar Baster Kanker on 03.07.2019.

14. The Project Proponent submitted that the advertisement for public hearing was published in 'Dainik Bhaskar' and 'Hindustan Times' on 06.12.2020. Public hearing was conducted on 09.01.2021 at Janpad Panchayat Bhawan Bhanupratappur under Chairmanship of Shree M.R. Chelak, Additional Deputy Collector, Uttar Baster. PP reported that 132 persons attended the Public Hearing. Issues raised during public hearing were related to Employment of Locals, Infrastructure Development, Sanitation and Hygiene, Community Development, Health Facility etc., An amount of Rs. 610.06 Lakh has been earmarked to address the issues raised during public hearing.

15. The Project Proponent submitted that there is no habitation and private land within the existing mine lease area. No additional land will be acquired for mining or any other project related activity hence Rehabilitation and Resettlement is not involved under the present proposal.

16. The Project Proponent submitted that there is no any Court Cases pending against the project and/or land in which the project is proposed to be set up.

17. The Project Proponent submitted the past production details duly authenticated by the Department of Mines and Geology, State Government for the period from 2008-09 to 2019-20 vide its letter No. 90/Khanij/Kh.P./2020-21, dated 20.05.2020. The production details are within the production capacity of 1.405 MTPA. PP also submitted the affidavit dated 18.08.2020 that the PP shall comply with all the statutory requirement & judgment of Hon'ble Supreme Court dated 2nd August 2017 in writ Petition (civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ors before grant of EC.

18. The Project Proponent submitted that Consent to establish (CTE) under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 for 0.705 Million Tonnes per Annum capacity was granted by Chhattisgarh Environment Conservation, Board (CECB), Raipur vide letter no 5158/TS/CECB/2007 dated 18.09.2007. Then CTE was granted by Chhattisgarh Environment Conservation Board (CECB) vide letter no. 3027/TS/CECB/2015 dated 05.10.2015 for expansion of lease area from 106.60 ha to 138.96 ha and enhancement of production capacity from 0.705 to 1.405 MTPA. CTE for the amendment for installation of 400 TPH Crushing & Screening facility within 138.96 Ha mine lease area was issued by CECB vide letter no. 4928/TS/CECB/2016 dated 07.12.2016. Consent to Operate under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 was obtained for 0.705 Million Tonnes per Annum capacity on 08.09.2008. Renewal of CTO was made from time to time. Last



CTO renewal granted by CECB vide letter no. 8414 /TS/CECB/2020 dated 29.12.2020 is valid till 05.01.2022. PP also submitted the EC compliance Report duly authenticated by the Regional Office of the Ministry vide letter dated F.No. 3-9/2015(ENV)/7354 dated 19.10.2020.

19. The Project Proponent has given undertaking that the data and information given in the application and enclosures are true to be best of my knowledge and belief. And I am aware that if any part of the data and information found to be false or misleading at any stage, the project will be rejected and clearance given, if any to the project will be revoked at our risk and cost. The Consultant also submitted an undertaking that the Consultant Organization shall be fully responsible for any misleading information mentioned in this statement.

20. The Project Proponent submitted that the total capital cost of the project is Rs. 6,147 Lakhs and capital cost for Environment Management Plan is Rs 395.22 Lakh and recurring cost is Rs. 48.41 Lakh/Annum. PP allocated budget of Rs. 60 Lakhs for Occupational Health and Safety. PP reported that expansion of the mine shall provide an opportunity of direct employment to 50 people. PP has already employed 1091 persons after the expansion total employee capacity will be 1141 persons.

21. The proposal for Environmental Clearance (EC) was considered before the Expert Appraisal Committee (Non-Coal Mining) in its 30th EAC meeting held during 6th - 8th April, 2021. Based on the documents submitted and presentation made by the Project Proponent and the Consultant, the Committee **recommended** the proposal for grant of Environmental Clearance for Aridongri Iron Ore mine for enhancement of iron ore production from 1.405 MTPA to 2.35 MTPA (Iron Ore 1.8 MTPA & BMQ 0.55 MTPA), Dolerite OB 3.949 MTPA, Interburden (IB) 3.071 MTPA (Total Excavation 9.37 MTPA) along with setting up of Banded Magnetite Quartzite (BMQ) Beneficiation plant of 0.6 MTPA capacity, 250 TPH Iron Ore Screening Pant with magnetic separator for processing of low grade material and 2 MTPA Dolerite Crushing & Screening Plant in 2 modules of 1 MTPA, within the existing mining lease of 138.96 Ha at Village Kachche, Tehsil Bhanuparatppur, District Uttar Bastar (Kanker), Chhattisgarh with specific conditions in addition to the standard conditions applicable for non- coal mining projects.

22. The matter was examined in the Ministry in accordance with the Environmental Impact Assessment Notification, 2006 and further amendments thereto and the undersigned is directed to say that the Ministry of Environment Forest & Climate Change after accepting the recommendation of EAC during its 30th EAC meeting held during 6th - 8th April, 2021, hereby accords the Environmental Clearance under the provisions thereof to the above mentioned proposal of **M/s Godawari Power and Ispat Limited for grant of Environmental Clearance for Aridongri Iron Ore mine for enhancement of iron ore production from 1.405 MTPA to 2.35 MTPA (Iron Ore 1.8 MTPA & BMQ 0.55 MTPA), Dolerite OB 3.949 MTPA, Interburden (IB) 3.071 MTPA**



(Total Excavation 9.37 MTPA) along with setting up of Banded Magnetite Quartzite (BMQ) Beneficiation plant of 0.6 MTPA capacity, 250 TPH Iron Ore Screening Plant with magnetic separator for processing of low grade material and 2 MTPA Dolerite Crushing & Screening Plant in 2 modules of 1 MTPA, within the existing mining lease of 138.96 Ha at Village Kachche, Tehsil Bhanuparatppur, District Uttar Bastar (Kanker), Chhattisgarh with the following specific conditions in addition to the standard conditions applicable for non- coal mining projects.

A. SPECIFIC CONDITIONS

- i. The Project Proponent shall undertake the plantation in peripheral zone and ensure that the plantation in peripheral zone and plantation along haul roads should be completed within 3 years from the date of commencement of mining operations with at least 90% survival rate. Casualties of the previous year should be replaced other than the saplings proposed to be planted every year. PP shall provide tree guard to maintain the early stages of plant growth.
- ii. PP shall take necessary steps to avoid the fugitive dust emission due to mining activities and vehicle movement. The roads shall be regularly cleaned and maintained in proper conditions by the project authorities.
- iii. The budgetary plan of Rs. 610.06 Lakh proposed to address the public concerns should be strictly followed and completed within 3 years and the development should be submitted during submission of EC compliance. PP shall also organize employment based apprenticeship/ internship training program with stipend for the youth and other programs to enhance the skill of the local people.
- iv. PP shall explore more possibilities to augment ground water resources in the area.
- v. PP shall ensure the adequate safety measures to avoid dust inhalation by workers and pollution control measures adopted during drilling and blasting.
- vi. The Project Proponent shall obtain the NOC from CGWA for withdrawal of water before undertaking mining operations.

B. STANDARD CONDITIONS

I. Statutory compliance

- 1) 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.



- 2) The Project proponent complies with all the statutory requirements and judgment 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.
- 3) 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 Judgment 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.
- 4) The Project Proponent shall follow the mitigation measures provided in MoEFCC's 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".
- 5) 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.
- 6) 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.
- 7) 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.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.
- 8) The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred, PP need to apply for transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

II. Air quality monitoring and preservation



9) 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/PCI/I, 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.

10) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled 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 MoEFCC/ Central Pollution Control Board.

III. Water quality monitoring and preservation

11) In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEFCC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.

12) 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.



13) 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 including upstream and downstream. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. 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 MoEFCC. 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, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

14) 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-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.

15) Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEFCC annually.

16) 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.

17) 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 and State Pollution Control Board/Committee.



IV. Noise and vibration monitoring and prevention

18) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.

19) 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.

20) 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 PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

V. Mining plan

21) The Project Proponent shall adhere to approved mining plan, inter alia, including, total excavation (quantum of mineral, waste, over burden, inter burden and top soil etc.); mining technology; lease area; scope of working (method of mining, overburden & dump management, O.B& dump mining, mineral transportation mode, ultimate depth of mining, concurrent reclamation and reclamation at mine closure; land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life; etc.).

22) 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 MoEFCC and its concerned Regional Office.

VI. Land reclamation



23) The Overburden (O.B.), waste and topsoil 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 / waste dumps / topsoil dump like height, width and angle of slope shall be governed as per the approved Mining Plan and the guidelines/circulars issued by D.G.M.S. The topsoil shall be used for land reclamation and plantation.

24) 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 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.

25) Catch drains, settling tanks and siltation 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.

26) 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.

VII. Transportation

27) 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. [If applicable in case of road transport].

28) 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.

VIII. Green Belt

29) 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 by the Ministry irrespective of the stipulation made in approved mine plan.

30) 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.

31) 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.

IX. Public hearing and human health issues

32) 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.

X. Corporate Environment Responsibility (CER)

33) The Project Proponent shall submit the time- bound action plan to the concerned regional office of the Ministry within 6 months from the date of issuance of environmental clearance for undertaking the activities committed during public consultation by the project proponent and as discussed by the EAC, in terms of the provisions of the MoEF&CC Office Memorandum No.22-65/2017-IA.III dated 30 September, 2020. The action plan shall be implemented within three years of commencement of the project.

XI. Miscellaneous

34) 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.

35) 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.

36) 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, Central Pollution Control Board and State Pollution Control Board.



37) 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, MoEFCC.

38) The concerned Regional Office of the MoEFCC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEFCC officer(s) by furnishing the requisite data / information / monitoring reports.

39) In pursuant to Ministry's O.M No 22-34/2018-IA.III dated 16.01.2020 to comply with the direction made by Hon'ble Supreme Court on 8.01.2020 in W.P. (Civil) No 114/2014 in the matter Common Cause vs Union of India, the mining lease holder shall after ceasing mining operations, undertake regrassing the mining area and any other area which may have been disturbed due to other mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

40) The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

41) Concealing factual data failure to comply with any or submission of false/ fabricated data and of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

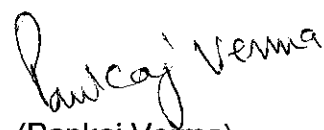
23. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court and any other Court of Law relating to the subject matter.



24. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

25. This issues with the approval of Competent Authority.

Yours faithfully,



(Pankaj Verma)
Scientist 'E'


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Tel./Fax- 011- 24695264

Copy to:

- 1). **The Secretary**, Ministry of Mines, Government of India Shastri Bhawan, New Delhi.
- 2). **The Secretary**, Department of Environment, Government of Chhattisgarh.
- 3). **The Secretary**, Department of Mines and Geology, Government of Chhattisgarh, Chhattisgarh.
- 4). **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
- 5). **The Chairman**, Chhattisgarh Environment Conservation Board, Nanak Niwas, Civil Lines, Raipur, Chhattisgarh.
- 6). **The Additional Principal Chief Conservator of Forests (C)**, Ministry of Environment, Forest and Climate Change, Regional Office (WCZ), Ground floor, East wing, New Secretariat Building, Civil Lines, Nagpur – 440 001.
- 7). **The Controller General**, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
- 8). **The Member Secretary**, Chhattisgarh State Pollution Control Board, Commercial complex, Chhattisgarh Housing Board colony, Kabir nagar, Raipur, Chhattisgarh.
- 9). **The Member Secretary**, Central Ground Water Board, 18/11, Jam Nagar House, Man Singh Road, New Delhi – 110 011.
- 10). **The Chief Wildlife Warden**, Govt., of Chhattisgarh, Aranya Bhavan, Jail Road, Fafadih Chowk, Raipur – 492 001.
- 11). **The District Collector**, Uttar Bastar (Kanker) District, Govt. of Chhattisgarh.
- 12). **Guard File.**

13). PARIVESH portal.


(Pankaj Verma)
Scientist 'E'