

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE, ODISHA HELD ON 28TH MARCH, 2022**

The SEAC met on 28th March, 2022 at 10:30 AM through Video Conferencing in Google Meet under the Chairmanship of Sri B. P. Singh. The following members were present in the meeting.

1. Sri B. P. Singh	-	Chairman
2. Dr. K. Murugesan	-	Secretary
3. Dr. D. Swain	-	Member
4. Prof. (Dr.) H.B. Sahu	-	Member
5. Sri J. K. Mahapatra	-	Member
6. Sri K. R. Acharya	-	Member
7. Prof. (Dr.) B.K. Satpathy	-	Member
8. Prof. (Dr.) P.K. Mohanty	-	Member
9. Dr. Sailabala Padhi	-	Member

Draft proceeding of the meeting was finalized by the members through e-mail and also final proceeding of the meeting was confirmed by the members through e-mail. The agenda-wise proceedings and recommendations of the committee are detailed below.

ITEM NO. 01

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. SREE METALIKS LTD. FOR KHANDBANDH IRON ORE MINES FOR ENHANCEMENT IN PRODUCTION OF IRON ORE FROM 0.702 MTPA TO 1.50 MTPA WITH OPENCAST FULLY-MECHANIZED MINING METHOD BY INSTALLATION OF CRUSHING & SCREENING PLANTS OVER ML AREA OF 35.774HA LOCATED IN BAITARANI RESERVE FOREST NEAR VILLAGE KHANDBANDH, TAHASIL – BARBIL, DISTRICT - KEONJHAR OF SRI REWATI RAMAN SHARMA – EC.

1. The Khandbandh Iron Ore Mines is captive mines of M/s Sree Metaliks Ltd spreads over an area of 35.774 hectares located in Baitarani Reserve Forest under Keonjhar Forest Division near village Khandbandh under Barbil Tahasil of Keonjhar District, Odisha. The entire mining lease area of 35.774 ha falls within the Baitarani Reserve Forest. The Mining Lease area was granted vide letter no III(A)SM-36/2002/407/SM dated 11.01.2017 under Rule 8(2) of MCR 2016 for a period of 50 years in favor of M/s Sree Metaliks Ltd. Subsequently, the ML was executed on 11.01.2017 for a period of 50 years from the date of execution i.e. w.e.f. 11.01.2017 to 10.01.2067 in favor of M/s Sree Metaliks Ltd. After the execution of the lease deed the mining operation was started on 21.03.2018. The mine is part of Survey of India Topo sheet bearing No.73G/5 and is bounded by the latitudes from 22° 06' 16.72057" to 22° 07' 41.65495"N & 85° 25' 32.28303" to 85° 26' 40.67115"E.
2. The proposal was appraised in the SEAC meeting held during 14.7.2021 and the committee recommended for prescribing ToRs for undertaking EIA study for proposed project. Accordingly, SEIAA, Odisha prescribed ToRs vide letter 1798/SEIAA dated 26.07.2021 for Environment Clearance enhancement in production capacity from 0.702 MTPA TO 1.50 MTPA with crushing & screening plants by fully mechanised mining method. As per the EIA Notification 2006(and amendment thereof), the project fall under activity wise 1(a) and Category 'B' with area threshold limit.
3. The life of the mine is calculated to be 08 year after the modified review period. (5 years of Review of Mining Plan period + 3 years of conceptual period).

4. Opencast Fully mechanized method of mining will be adopted to develop the mines laterally and down ward. The mine will be operated in a three shift basis as per the existing practice. Process of excavation and loading of overburden/waste will be done by deploying hydraulic excavators and dumpers.
5. During plan period 2 quarry i.e. 1 & 2 will be developed and further it will merge to single Quarry. Fully Mechanized open cast mining with Crushing & screening units. Geological Reserves is 17.71 Million Tonnes. Mineable Reserves is 10.973 Million Tonnes, Average Bench height & width are 6m & 9m respectively. The final slope angle of the pit will be 45° at the end of the life of the mine, Cut-off grade considered is +58% Fe. Mineral reject is +45 to -58% Fe. 70% of the mineral reject produced will be blended with +58% ore and consumed, Life of mine is 8 years including the present plan period, Total generation of waste during plan period is 1969469 Cum. During Conceptual period 1047192 cum waste will be generate. Out of which 30% will be utilized for road maintenance. Remaining 70% will be backfilled in the earmarked site, Total generation of mineral rejects during plan period is 2710383 T. During conceptual period 655187 Cum mineral reject will be generated. out of which 70% will be blended and used and remaining 30% will be stacked temporarily in 2 no's of subgrade dump and further it will be re-handled, Mode of transportation will be through 25t to 30t dumper/Volvo.
6. The total 1.620 ha safety zone area is been under green belt/plantation program.
7. The Deep Hole–Drilling and blasting using bulk explosive (SME) shall be practiced. The design of blasting parameters was determined (Burden, Spacing, Charging and Stemming) to minimize the impact of ground vibration, noise & air over pressure and fly rock. Basically the blasting design would be with a spacing of 3.0 m and Burden of 2.5m and with a sub grade drilling of 0.6 m depth (10% of total bench height). The blasting is being carried out as per CFRI, Dhanbad.
8. Reclamation and rehabilitation work will be undertaken as per the progressive mine closure plan.
9. Total quantity of water requirement for the project is 159.80 m³/day out of which 150 m³/day will be met from Sona River and 9.80 m³/day will be from ground water. For withdrawal of water from both the source NOC had been obtained from the Proponent.
10. Total Electricity required is 735 KVA and same will be sourced from state Grid. Two no's DG set of 15 KVA and 25 KVA shall be installed for standby purpose. At present power requirement meets from DG set only.
11. Fuel Requirement in mine will be 5 KLD HSD for mining equipments and haulage purposes, which is procured just in time manner from outside petrol pumps.
12. There will be 166 employees required for Mining Operation. However secondary employment shall be generated with the operation of the mine, which shall directly affect 166 families and indirectly affect another 85 families for their livelihood.
13. The ML area is approachable from Joda via Bichhakundi. It is 8 km away from Joda. Banspani and Jururi Railway station are the nearest railway station from the lease area. Banspani Railway station at 10km and Jururi Railway station is 12km away from the lease area. Bhubaneswar airport (320 km away) is the nearest airport from the area. There is an airstrip/ helipad near Bhadrasai, Barbil which is around 21km from the lease area.

14. The project will start within 45 days of issuance of environmental clearance from SEIAA Odisha
15. Project Cost is Rs 32.43 Crore (Rs 29.8 Crore capital cost + Rs 2.63 Crore CER Cost)
16. The monitoring to study the present environmental condition in terms of its components at the location was carried out from Oct 2020 to Dec 2020.
17. The meteorological conditions in an area regulate the transport and diffusion of air pollutants released into the atmosphere. These data are very important for proper interpretation of the baseline information as well as for input prediction for air quality prediction models. Based on the last three months' average diurnal climatologically data from the AERMOD source. Wind is blowing from South-West to North-East and resultant wind direction is 117° which is 14%.
18. Average rainfall of 10 years from 2006 to 2018 is 1418.7mm. Site specific temperature is 13° min and 34° max. Similarly Humidity is 19% to 97%, Rainfall is 0.0mm to 13.1mm. Predominant wind direction is SW to NE.
19. For Ambient Air Quality eight location are chosen. Out of eight, four are chosen from Project site & four are chosen within the buffer zone having distance 2.73 to 4.56km within 5km radius distance from the project boundary inward direction to the resultant wind direction is expected to carry the total pollution load. It is observed that the all parameters at all stations are well within the limits prescribed by Central pollution control Board.
20. The baseline air quality data indicates that the average PM₁₀ ranges from 41.8-80.2µg/m³, PM_{2.5} ranges from 11.8-45.20µg/m³, SO₂ ranges from 4.2-9.22µg/m³, NO_x ranges from 8.2-17.2 2µg/m³. As per NAAQS norms 100, 60, 80 & 80 µg/m³ respectively is the ranges. The concentration of Particulate matter in nearby areas shows that the impact of mines is not so significant or the line source of dust emission is under control. In an overall sense the AAQ are well within the NAAQS standard for the area.
21. Based on the proposed production enhancement, the maximum increments in the concentrations of PM₁₀, PM_{2.5} & NO_x are 5 µg/m³, 0.1 µg/m³, 0.1 µg/m³ respectively and the resultant concentrations are well within the NAQMS standards.
22. To assess the level of fugitive dust due to mining and allied activities, 8 monitoring stations were selected within the lease considering the activity area. The fugitive emission from probable sources within the leasehold area are well within the limits and is under control due to regular water sprinkling on the haulage roads and open areas within the mine.
23. The assessment of noise pollution on neighborhood environment due to the project was carried out keeping in view, all the considerations mentioned. Location N1, N2, N3 & N4 are within project site. N5, N6, N7 & N8 is farthest from the Project area which are within 2km to 6.50Km from the mine lease boundary. Core Zone Noise quality ranges in day time 55.1 to 60.8dB(A) & at night time 43.1-45.3 dB(A). Buffer Zone Noise quality ranges in day time 42.7 to 45.3 dB(A) & at night time 35.8-37.5 dB(A). So, as per CPCB Residential area day time will be 55dB(A) & night time will be 45 dB(A) from which it is understood that the buffer zone noise quality is within the norms.
24. The surface water location has been chosen within 10km radius from the project site to know the surface water quality. Considering no such discharge from the project, any surface water impacts is quiet impossible other than any probable seepage and

percolation to nearby static water bodies, however four surface water samples were considered i.e. Upstream & Downstream of Suna River, Water from river Baitarani near village Jalahari & water from Dalco Nala.

25. The pH of the water samples collected ranged from 6.5 to 7.8. TDS ranges from 63 to 105mg/l, Sulphate ranges from 9 to 23mg/l, Nitrate ranges from 2.2 to 3.6mg/l, Chloride ranges from 12.4 to 16.2mg/l, Fluoride ranges from 0.26 to 0.54mg/l. However, from Surface water standard IS2296-Class-C pH ranges 6.5-8.5, TDS 1500mg/l, Sulphate 400mg/l Nitrate 50mg/l, Chloride 600mg/l & Fluoride 1.5mg/l it is observed that all the 4 location water are within the permissible water.
26. The local water level fluctuation between Pre and Post monsoon 2011, in the Project area is between 4.0 to 4.5 m. The annual replenishable groundwater resource of the area is about 46.57 mcm. Based on the regional utilization of GW, the stage of development is only 41.40%.
27. The ground water location has been chosen within 10km radius from the project site to know the ground water quality. Open wells as well as operating public bore wells were chosen for the sampling.
28. The pH of the GW samples collected ranged from 6.2 to 6.99 and within the acceptable limit of 6.5 to 8.5. The total dissolved solids were found in the range of 38.4-182.2 mg/l. Total Hardness is ranged from 34 to 104mg/l. Chloride ranges from 13.6-28.17mg/l. Sulpahte ranges from 1.57-5.71mg/l. Iron ranges from <0.07mg/l. However, as per GW standard IS:10500:2012 all the values are within the acceptable limit at all locations.
29. In all samples, toxic substances are within the limits, with bacteria is in absence. Thus, the ground water is required can be used for drinking and domestic use after necessary primary treatment, softening and disinfection.
30. The study area is characterized by two types of soil – Alfisols and Ultisols. Soil samples from 5 locations are taken within the core and buffer zone for analysis. From the analysis the pH ranges from 6.48 to 6.72 from this the it concluded that soil is weak acidic in nature, Bulk Density ranges from 1.28-1.31 gm/CC. Water holding capacity ranges from 21.2- 22.1%. Nitrogen ranges from 0.051- 0.056 %. Phosphorus ranges from 0.0-17 0.019 %. Potassium ranges from 0.066- 0.069 %. From the above soil analysis data soil is fertile and good for agriculture process.
31. The common flora existing in the lease hold area as well as in the buffer zone around a radius of 10 Kms of the project area are *Shorea robusta*, *Terminalia belerica*(Bahada), *Terminalia tomentosa*, *Adina cordifolia*, *Anogeissus latifolia*(Dhaura), *Madhuca latifolia*, *Lagerstroernia flosreginae*, *Lagerstroernia parviflora*(Patuli), *Holarrhena antidysenterica*, *Phyllanthus emblica*, *Ficus benghalensis*, *Madhuca indica*, *Anoegeissus latifolia*, *Diospyros melanoxylon*, *Mangifera indica*, *Terminalia alata*(Asan), *Syzygium cumini*(Jamun), *Schleichera oleosa*(Kusum) etc. Elephant, Sloth bear, Monitor Lizard are placed under Schedule-I as per Wild Life (Protection) Act, 1972 is found in the buffer zone area.
32. There is no National Park, Wildlife Sanctuary, Elephant Reserve, Biosphere Reserve, Ramsar site or Tiger Reserve in the study area. Site Specific Conservation Plan prepared and approved by PCCF (wild Life) and Chief Wild Life Warden, Odisha vide memo No 4400/1WL(C) SSP-311/2011 dated 02.07.2011. The project has estimated cost of Rs 82 lakhs for both buffer & core zone. Out of the above amount Rs 68.00 lakhs has been deposited under CAMPA.

33. There are 27 villages are coming within 5 km of the project impact zone the Khandbandh Iron Ore Mines project area for which need based assessment survey has been done. For immediate implementation 6 villages has been taken i.e. Khandbandh, Chormalda, Kundrupani, Guruda, Chhatabar & Tilapur.
34. There is no human settlement in the M. L. area. The project does not envisage any leasing or acquisition of private land. Hence there will not be any land ousters who have to be resettled our rehabilitated.
35. The project located at Khandbandh under Barbil division in Keonjhar District, Odisha. The total work force are highly skilled, skilled workers, semi-skilled, Executive staff & contractual are 166, Out of which, 30- 40 employees belong to villages are - Khandbandh, Chormalda, Kundrupani, Guruda, Chhatabar & Tilapur, within 5-7km radius of the M L area.
36. The average Volume to Capacity (V/C) ratio for base year of study road network is estimated is about 0.279. In the study road network, improvements such as road widening on NH-215 which is going to be completed soon, road widening from Joda to Kalimati is going on which has been considered for performance evaluation.
37. As per the CRR I study the additional allowable Iron ore is estimated for base year as per maximum V/C threshold (0.70) is about 214 Million Tons Per Annum (MTPA) for study road network in Joda- Barbil region. So, the additional traffic from Khandbandh Iron Ore Mines i.e. 8 tucks/hour add in the existing traffic on the road after start the mining operation which will have very negligible impact. The V/C ratio will remain in Category "B".
38. Impact Assessment of the study area carried out for both operation and Mine Development phase of the proposed mines and mitigate measures are recommended for different environment such as Air, Water, Land, Biological Environment, Socio economic, Noise.
39. Water sprinkling will be done at regular intervals on the dust prone areas such as haul roads and other possible dust generation areas to suppress emission and distribution of dust particles. Plantation will be undertaken in the safety zone to arrest the air borne dust from further spreading.
40. In order to take extra protection measure of kundra nalla loose boulder wall retaining wall followed by cemented wall followed by garland drain has been made. Settling pond/ check weirs has been provided at the strategic location. Further during the expansion the same run-off management structures will be augmented towards arrest the wash-off materials to settle the sediments.
41. The maximum noise level prescribed by Director General of Mine Safety (DGMS) for an 8 hours exposure is 90dB (A). Therefore, control measures suggested to keep the noise level within permissible limit.
42. Delay detonators will be used to split a large vibration package in to a number of small vibration levels. Vibration will also be minimized by changing the broad blasting parameters on trial & error basis.
43. During the social impact assessment process, locals raised the question regarding more job opportunities. The proposed facility would generate jobs for the women laborers during construction as well as operation phase. This project will increase the economic activities around the area, creating avenues for direct/indirect employment in the post

project period.

44. Site selection has little relevance with respect to a mining project, which is mainly guided by geological occurrence of minerals and ores. Moreover, as stated earlier, Khandbandh iron ore mines is an existing iron ore mine of M/s. Sree Metaliks. Therefore, the site alternative is not pertinent with respect to the present proposal.
45. For Work Zone weekly twice at various locations in the mines with parameters PM10, PM2.5, NO2, SO2 & CO and mineralogical composition monitoring will be done.
46. For Ambient Air Quality two consecutive day in a week/station or as per SPCB requirement at 5 different locations (Core zone 2 + Buffer zone 3) with parameters Sulphur dioxide (SO2), Oxides of Nitrogen (NO2), Respirable Particulate (PM2.5/10) & CO monitoring shall be done.
47. For Meteorology Continuous monitoring throughout the year 1 location within the mine lease area of parameters Wind speed and direction, Rainfall, Temperature and humidity monitoring shall be done.
48. For Surface water Quarterly once or as per SPCB/MoEF & CC requirement as per IS 2296 location Upstream and downstream of Baitarani, Jalahuri, Suna nadi monitoring shall be done.
49. For Ground water Quarterly once or as per SPCB/CGWA/MoEF & CC requirement as per IS-10500:2012 monitoring shall be carried out Near Mine Lease area, Open well near village Jurudi, Jajanga & Jalahuri
50. For Noise level of work zone & ambient noise level Fort-nightly once or as per SPCB/DGMS requirement active mine working area, haul road, lease peripheral areas and based on their requirement & priority & different locations in and around the mines with consulting with Regional Officer, SPCB respectively monitoring shall be carried out.
51. For Vibration monitoring shall be carried out at least two places within the mine lease area at an appropriate distance from the blast face. Its shall be ensured that the vibration level due to blasting are less than the DGMS prescribed limits with parameters such as peak particle velocity, Air over pressure, fly rock measurements monitoring shall be carried out.
52. For Socioeconomic environment in and around (local Villages) of the mines as per CSR activities and reported six monthly with EC compliance monitoring carried out. For Biological Environment Green belt development monitored inside mines area and buffer zone where ever plantation is being/will be carried out as per the six monthly compliance report.
53. Details of Occupational Health environment shall be monitored and reported along with six monthly compliance reports.
54. After analysis the analysis report are shall sent to OSPCB and Regional Office, MoEF & CC monthly basis. A copy of report shall be available in the mines with the concerned inspecting officers.
55. The project has incurred an expenditure towards establishment of infrastructure related to environmental management system is Rs.76 Lakhs. However, the operating cost envisaged for recurring expenditures is Rs.26.14 Lakhs per year.
56. For the socio-economic development of the local villages Sree Metaliks has been spend nearly 30 lakhs for different CSR activities for the year 2020-21. As per the

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recommendation of Need base assessment study by AISD, an amount of Rs 755.97 lakhs has been estimated for various socio-economic development in next 5 years. However in lieu of the recent notification of CER Spending, the final implementation plan and associated costs shall be decided based on the outcomes of Public Hearing is coming around Rs 2.63 Crore and according the project cost is Rs 32.43 Crore.

57. The Public hearing was held on 06.12.2021 at 11.00 am at Baitarani Reserve Forest. Sushama Bilung, Additional District Magistrate, Keonjhar and Shri Puskar Chandra Behera, RO, SPCB was addressed the meeting.
58. Statement of issues and demands raised by the public and commitment of the project proponent during the public hearing held on 06.12.2021 at 11.00 am at Baitarani Reserve Forest 03 kms from village Khandbandhh and about 20 mts from Dalpahad Basti under Baitarani Reserve Forest(A) area. The public hearing implementation cost is coming Rs 2.63 Crore.
59. Risk Assessment and Disaster Management Plan in connection with mining and allied operations of the project will be spelt out in detail to cover possible dangers / risks / explosions /accidents, etc. likely to arise from the project operations, including on site and off site emergency plans to meet the disastrous situations if any.
 - Occupational Safety &Health
 - Socio Economic Study
 - Biodiversity Study with Audit Mechanism
 - Blasting Study
 - Dump Slope Study
60. Due to the proposed project there will be improvement in physical infrastructure by up gradation of nearby infrastructural facilities. M/s Shree Metaliks Private Limited is very much conscious about the socio-economical development of neighbouring areas, wants to change the quality of life and to develop social well- being of communities where it operates.
61. As the project will be considerable employment & trade opportunities with the commencement of the production activities. Secondary jobs will also bind to be generated to provide daily needs and services to the work force. This will increase the demand for essential daily utilities in the local market.
62. The EMP has been designed within the framework of various legislative and regulatory requirements on environmental and socio-economic aspects. Capital Cost earmarked for environmental Management Plan is 55.00 lakh and recurring cost shall be 19.lakh/annum
63. Dust will be generated from mine working faces, occasional drilling and blasting, stock piles, crushing activity and also during handling and transportation of the material.
64. Wind erosion resulting in particulate dispersion, fugitive dust during loading and unloading are mitigated by adopting optimum height of release of material from trucks, spraying water to maintain optimum moisture on the surface to preclude dust raise, provision of greenery surrounding the stock piles.
65. Water sprinkling in haul roads to reduce the fugitive dust emissions.
66. Overloading of trucks will be avoided to mitigate fugitive dust during transportation of mineral.

67. Dry fog system has also been fixed in tertiary crusher area.
68. Noise Quality Management
69. Plantation of native trees in row around mine periphery including safety barrier area along the roads, other noise generating centers and simultaneous plantation in backfilled area to act as acoustic barriers.
70. Sound proof operator's cabin for equipment like Excavator, Tippers/Dumper, etc.
71. For less noise generation proper and regular maintenance of equipment shall be carried out.
72. Providing in-built mechanism for reducing sound emissions.
73. Providing earmuffs to workers exposed to higher noise level.
74. Workers which are engaged in the noise prone area regular health check-up of workers including Audiometry test shall be carried out.
75. The noise level status shall be displayed in the operational machinery on the machines to know the extent of noise level and to control the time to which the worker is exposed to higher noise levels.
76. Waste water generated from domestic purpose which is being treated through STP. Garland drains & retaining walls have been constructed all around the dumps and plantation of native species on the dump slopes to minimize erosion. Drain shall regularly de-silt and maintained. Regular maintenance shall be carried out for the run-off management structure.
77. Detail planning has been made for undertaking plantation. Regarding green belt development plan, till date a total of 4.696 Ha area has already been covered under plantation in safety zone area etc. within the lease area. Total 11740 no's of plantation existing at strategic locations like Safety zone, Dump slope, Haul road side etc. Further, for the next 10 year Lessee has planned for plantation of 18000 no's of saplings over an area of 7.04 Ha. Capital cost of Rs 21 lakhs & recurring cost of Rs 9.64 lakhs has been estimated for this purpose.
78. Adoption of systematic and scientific mining, proper and timely execution of various environment management plan like fixed, mobile water sprinkling, rainwater harvesting, controlled blasting practices, effective solid waste management technique, surface run off management, surface drainage management, occupational health management, etc., will ensure maintenance of future environmental quality within statutory limits after the proposed expansion also.
79. The proponent along with the consultant **M/s. Ardra Consulting Services Pvt. Ltd., Bhubaneswar (NABET certificate No NABET/EIA/1922/IA0055)** made a detailed presentation on the EIA/EMP report before the SEAC.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Ardra Consultancy Services Pvt. Ltd., Bhubaneswar**, the SEAC decided to take decision on the proposal after receipt of the following information / documents from the proponent.

- (i) A comparative statement in matrix form of base line data regarding environmental parameters during the year 2009 submitted w.r.t EC granted is 2009 and the same parameters data in 2021 for above proposed EC be submitted.

- (ii) Comparative position of PH (Public Hearing) issues raised during 2009, action taken on the same and issues raised in 2021 and action proposed thereof with definite time frame and associated cost be submitted.
- (iii) A comparative statement of salient physical features and environmental parameters of the existing Mines and proposed expansion be submitted in matrix form. The physical features, viz: dumps, retaining walls, garland drains, settling pond, RWHPs etc. be shown in the respective lay out maps and superimposed layout map of the proposed expansion on the existing one.
- (iv) Permanent occupational Health Centre committed by Project proponent put as a specific condition in EC in 2009 by SEIAA and is not complied as of to-day as observed in EC compliance report of RO, MoEF&CC, Bhubaneswar. Therefore, a specified definite time for compliance of the same be submitted, the copy of which will be forwarded to concerned District Administration for information & necessary action.
- (v) Certified copy of compliance to CTO conditions from Pollution Control Board, Odisha for the existing mines be submitted.
- (vi) Copy of compliance to NEERI recommendations be submitted with reference to physical features along with photographs, viz: Haulage Road, Plantation in Haulage Road, Parking Plaza etc.
- (vii) Socio-economic gaps as found out by socio-economic study be outlined, the mitigation measures recommended by experts(s) / Institute with time frame, target population and the cost associated be submitted. Action proposed by Project Proponent vis-à-vis the expert's recommendation be submitted.
- (viii) Tie-up / Agreements with Beneficiation / palletisation plant for beneficiation of low-grade Iron Ore with relevant document copy be submitted along with the capacity & capacity utilisation of the said plants vis-à-vis the generation of the low-grade Iron from existing mine, its current management & proposed expansion for at least next 5 years.
- (ix) What happens to total run-offs during monsoon at present and the proposed expansion in future? Management of the estimated quantity & disposal thereof be submitted.
- (x) Total 160 KLD water from "Suna River" is stated to be drawn and 9.8 KLD from ground water through bore well (being drawn now & in future also). So, it is suggested that 9.8 KLD ground water drawl be dispensed and the same be drawn from "Suna River" for drinking water purpose with necessary treatment & with due permission from W.R Deptt, Govt of Odisha. Though 'NOC' is taken from CGWA for 9.8 KLD ground water, necessary permission to be taken for the same from W.R Deptt, Govt of Odisha also.
- (xi) Existing management & de-siltation of Suna River, Kakrapani Nala & surrounding about 15% Agriculture lands be submitted along with a write-up on illustration being practiced and for future with proposed expansion also.
- (xii) Physio-chemical analysis of water of Suna River with sediment analysis of the river including silica content be done & submitted to find potential of silt generation.
- (xiii) How vegetation is changing & what type of vegetation is changing due to the effect of the mining?
- (xiv) 166 Permanent employees and more than 200 floating employees will be working for this proposed mining i.e. total about 400 people will be engaged for the proposed

mining as stated by project proponent during presentation. There is no STP inside the Mines and stated to have a STP outside the Mines. Details location of the STP with connectivity between mines & the STP shall be submitted. Further, the capacity of the said STP, details of effluents generated by the mines & the people outside with calculation and disposal details of treated waste water & STP sludge be submitted with connectivity drawing etc.

- (xv) The possible important risk factors are slope failure of ore, OB & its dumps, Mineral waste, flying rocks during blasting, intersection with underground water in mining, seepage of mining etc. Mitigation measures for the above be submitted.
- (xvi) Protection & conservation plan of endangered, threatened and nearly threatened species / wild lives likely to be affected due to the existing mines & proposed expansion be submitted, identifying the species also.
- (xvii) Comments on petition received through SEIAA on this mine be submitted.

After receipt of comments on petition received through SEIAA on this mine from the lessee, if required, a site visit to be conducted by the sub-Committee of SEAC to verify the fact.

ITEM NO. 02

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S EVOS BUILDCON PVT. LTD. FOR EXPANSION OF RESIDENTIAL APARTMENT PROJECT OVER AN BUILT-UP AREA 23464.49 SQMT LOCATED AT PLOT NO. 552, KHATA NO. 313, MOUZA-SIPASARUBALI, PURI, ODISHA OF SRI KALINGA KESHARI RATH – EC.

1. M/s Evos Buildcon Pvt. Ltd. proposes an Expansion of Residential Apartment Project. The project site is located at Plot No. 552, Khata No. 313, Mouza- Sipasarubali, District-Puri, Odisha on a land measuring 1.917 acres or 7,758.55 m².
2. The project falls under category “B” or activity 8 (a) - Building and construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. The site is coming under development plan of PKD Authority. There are Total 1 Towers i.e. Residential, Departmental Store, Restaurant, Banquet Hall, SPA, Swimming Pool & Kids Pool, Open Food Court.
4. The nearest Railway Station is Puri Railway Station is about 5.6 km (NE) away from the project site and Biju Patnaik International Airport is at a distance of approx. 49 km in North direction from the project site.
5. The project has total 11 floors (G+10). The maximum height of the building will be 35.53m. The total plot area is 7758.55 sqm. Net Plot Area is 7446.37 sqm. The permissible ground coverage will be 2,978.548 sqm (40%) and proposed Ground Coverage will be 2912.20 (39.10%). The permissible FAR will be 37,231.85 sqm (@ 5 of plot area) and proposed FAR will be 21919.25 (2.943). The Non FAR for the project will be 1,545.24 sqm. Total Built up area for the project will be 23,464.49 sqm. The total population of project after proposed will be 2530 persons.
6. The total water requirement will be Ground water met through Bore well which is approx. 285 KLD, out of which total domestic water requirement is 276 KLD. The total domestic water will be 186 KLD, out of which fresh water requirement is approx. 186 KLD & flushing water will 90 KLD.

7. The project will generate approx. 239KLD of wastewater. The wastewater will be treated in an onsite STP of 290 KLD capacity. The treated water (215 KLD @ 90% of total waste water) will be reused for flushing (90 KLD), horticulture (8KLD). Surplus treated water during dry season (117KLD), monsoon season (124 KLD) and winter season (122KLD) will be discharged to external sewer with the requisite permission.
8. Total parking area requirement will be 5,479.812 m². And Total Parking i.e. 283 ECS will be provided.
9. The power supply will be supplied by State Electricity Board. The requirement load for the project will be approx. 1414 kVA. There is provision of 2 Nos. of DG sets of total 445 kVA (1x 320 kVA +1x 125) capacity for power back up during power frailer. Silent DG sets (Radiator cooled). Separate generator yard will be constructed for the residential block.
10. The total solid waste generation will be 1050 kg/day.
11. Total green area measures 1,861.59 m². Total no. of trees proposed = 120 trees.
12. Total Project cost is INR 78.297 Crores including land and development cost.
13. The project proponent along with the consultant **M/s Grass Roots Research & Creation India (P) Ltd.** made a detailed presentation on the proposal before the SEAC.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Grass Roots Research & Creation India (P) Ltd., Noida**, the SEAC decided to take decision on the proposal after receipt of the following information / documents from the proponent followed by site visit by sub-committee of SEAC.

- (i) The "Kisam" of the land including that of "road affected" area of 312.18m² (as stated) as per "HAAL / Sabak" revenue record be submitted and the construction work shall start only after the land is converted to "Gharabari" kisam by the appropriate Revenue Authority.
- (ii) Since it is an expansion proposal and construction is stated to have already started, the details of the construction done already with figures & 3D picture duly certified by the chartered Engineer be submitted. Details of the existing project such as built-up area, copy of building plan approval letter along with building plan of existing project etc. be submitted.
- (iii) Justification as to why this project will not be considered as a violation case.
- (iv) A comparative statement in matrix form containing all salient & relevant features of building construction & environmental parameters be submitted showing the same in the respective layout map (for original as well as proposed expansion) to scale including the superimposed one, showing plot area, road affected area, built-up area, ground coverage, FAR area, STP, drainage, green belt, entry & exit gate, with pedestrian path for residential & commercial complexes, parking, building heights etc.
- (v) Since built-up area is stated to be increased from 16,595.50 m² to 23,464.49 m², including ground coverage expansion of 623.55 m², the detail features that need to come up in additional ground coverage be indicated & shown, since ground coverage is proposed to be expanded from 30.73 % to 39.10 % & height of the building to increase by 11.53 mtr.

- (vi) Since the height of the building (s) is proposed to be increased is ten of floors, structural stability certificate to be submitted by PKDA approved engineer. If it is already done by NIT, Rourkela as stated during presentation, then the same need to be endorsed / authenticated by PKDA.
- (vii) Entry & Exit gates with pedestrian need to be provisioned separately for residential complex & commercial complex and submitted showing in the layout with appropriate dimensions.
- (viii) Parking to be shown & Submitted in the layout map as follows along with norms indicating the area, numbers and percentage:
 - ✓ For residential & commercial complex separately.
 - ✓ For 4 wheelers & 2 wheelers separately.
 - ✓ ECS in terms of 4 wheelers & 2 wheelers indicating the space provided as per the norm & the relevant document for the norm followed.
 - ✓ Parking provision in terms of ECS & space as well compatible with no of dwelling units & visitors (floating population for residential complex & commercial complex).
- (ix) Surplus treated waste water is stated to be given to nearby construction sites / farmers / Park plantation / External roads etc in the report, but during presentation, it was stated that the same will be discharged to external sewer / drain. This needs to be clarified & confirmed. In case the treated water is to be given to farmer, construction, documentary evidence needs to be submitted. Further, since this arrangement cannot be permanent and consistent, it is necessary to provide connectivity of excess treated water to the nearby drain. For discharging to external sewer/ drain, the permission / NOC from the drain authority to be submitted to take the additional load. The lateral distance between the proposed project boundary & the external drain / sewer be submitted including the ownership/ROW of the land need to be in favour of Project Proponent. Internal drainage map with quantity of both treated waste water / storm / run-off water be submitted.
- (x) Green Belt was stated to be 14% in the report circulated / uploaded, but corrected to 7.2% during presentation. As such the details with dimension of green belt coverage for the original & proposed expansion be submitted showing in the layout map. Greenbelt area is proposed to be less than 20%. It should be increased to 20% or more and accordingly, revised greenbelt plan be submitted.
- (xi) The source of domestic / drinking water is stated to be "Bore well". Since, Puri Municipality has agreed to provide water for similar housing projects, the Project proponent need to approach the concerned Authority for the purpose and submit the design of the sump to be provisioned for storage of municipality water and show it in the layout map.
- (xii) Certificate from the concerned authority that the project is not located in the sweet water zone of Puri be submitted.
- (xiii) DG sets location to be shifted from shown south-east corner considering the prevailing wind direction as discussed during presentation. Location of dwelling towers and the drawing of the installation of the exhaust pipe of DG sets to be submitted. Study report on extent of sea breeze and land breeze impact over that area and accordingly position of DG set strictly followed.

- (xiv) Considering Puri being severe cyclone prone place and high flood zone, and site is approximately 900 mtr from Bay of Bengal (Sea), detailed mitigation measures for disaster be submitted.
- (xv) Certificate from the concerned authority that the project is not located within the CRZ.
- (xvi) Since no rain water recharge is proposed considering the geography, details of rain water harvesting & its use be submitted.
- (xvii) Total power requirement is stated to be 1414 KVA. Details of solar power generation & consumption thereof with calculation be submitted showing as the percentage of total power demand.
- (xviii) Fire Tender Corridor details with dimensions showing in the layout map be submitted along with approval of Fire Services Authority.

ITEM NO. 03

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR DUBULA STONE QUARRY OVER AN AREA OF 13.00 ACRES / 5.2611 HA. MOUZA - DUBULA, PS - TARABHA, DIST- SUBARNAPUR HOLD NO- 251, PLOT NO:1370 OF SRI NAROTTAM MOHANTY – EC

The project proponent did not attend the meeting. The SEAC decided to defer the case to next meeting.

ITEM NO. 04

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S BALAJI ENGICONS PVT. LTD. FOR CHHUIPALI SAND QUARRY ON RIVER KELO OVER AN AREA OF 5.90 HA/ 14.58 ACRE IN VILLAGE - CHHUIPALI, TAHASIL - LAKHANPUR, DISTRICT - JHARSUGUDA OF SRI SUSHIL KUMAR AGRAWAL – EC.

1. The Environmental Impact Assessment (EIA) & Environmental Management Plan (EMP) of Chhuinpali river sand bed belongs to M/s Balaji Engicons Pvt Ltd (Sri Sushil Kumar Agrawal) address all the environment related issues and is prepared in accordance with the requirements of the Approved TOR issued by SEIAA vide letter no. 9228/SEIAA on dated 14.10.2020, Odisha and as per Ministry of environment forest & Climate Change, Govt. of India, EIA notification (2006) and subsequent amendments. The EIA / EMP report for the mines has been prepared by Kalyani Laboratories Private Limited, Bhubaneswar based on the base line study carried out during October to December 2020.
2. Chhuinpali Sand quarry is spread over an area of 5.90 Ha. The project intend for excavation of maximum up to 13659cu.m/ annum of sand from the lease area. The project site of Chhuinpali sand Quarry is located on the river bed of Kelo River in village Chhuinpali under Lakhanpur Tahsil of Jharsuguda district. The land of the mine is categorized as Jalabhandar Kisam. The area is located in Survey of India Toposheet no. 64O/9 and bounded by Latitude: 21°46'33.86"N to 21°46'55.00"N and longitudes of 83°32'57.13"E to 83°33'10.19"E. Nearest road is road near Bhikampali which is located within 1Km from the lease area. The site is well connected to NH-200 at 1Km from the lease area. Nearest railway station is Raigarh railway Station which is located at distance of 20 Km. from the lease area. Nearest airport is Jharsuguda airport at 68Km from the mining lease area. The stratigraphy of the area is upper deltaic plain. The project intends for excavation maximum of 13659Cu.m per annum of sand from the lease area. No waste will be generated from the activity. Water requirement for the project will be 3 KLD

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which will be sourced by tanker. Total 12 nos. of man power will be required. Transportation will be carried out by Truck/ Tractors. Total cost of the project will be Rs.10,00,000/- approximately.

3. The method of excavation of sand from Chhuinpali Sand quarry will be manual open cast mining. The mode of the deposits, geomorphology of the area and its hydrological condition are some of the factors that favour the open cast method of mining. The geological and mineable reserve of the lease area is 85518 cu.m and 68283 Cu.m respectively.
4. Supervisory personnel will be only 01 in number. The lessee will employ 2 skilled, 1 semi-skilled and remaining 8 unskilled workers for the excavation of sand. The mining lease area falls within the river course of Kelo River, below the high flood level. It therefore cannot be put to any other use. The kism of land under the lease is Jalabhandar. Before the lease was granted it was part of the river course. During the mining of river bed the mining would be resorted to a depth of 1.5 m only. Post mining also the area will remain part of active river course and the pit developed due to excavation of sand will be replenished during the monsoon season.
5. The Public Hearing in respect of Environment Clearance for Chhuinpali Sand Bed on River Kelo over ML area of 5.90 Ha. for the purpose of achieving maximum production capacity of 13659 m³ per annum at village Chhuinpali, Lakhanpur tehsil of Jharsuguda district was conducted on Dtd.31/08/2021 at 11:30 A.M. at village Chhuinpali, Lakhanpur tehsil of Jharsuguda district, Odisha. The major issues raised during public hearing is issues concerning local employment, issues related to plantation, health of employed persons, peripheral development, air pollution and other Miscellaneous issues.
6. The Environment management cost allocated for the project will be Rs. 4.00 lakhs per annum and social development cost will be 7.25 lakhs as allocated in compliance to public hearing demand.
7. The project proponent along with the consultant **M/s Kalyani Laboratories Pvt. Ltd., Bhubaneswar** made a detailed presentation on the proposal before the SEAC.
8. The committee observed that the Proposed sand quarry project is 3 kms away from Hirakud reservoir. No replenishment study has been undertaken and natural replenishment is assumed with 1.5 mtr depth of mining with replenishment factor of 100%

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Kalyani Laboratories Pvt. Ltd., Bhubaneswar**, the SEAC recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions as per **Annexure – A** in addition to the following specific conditions.

- i) Revised mining plan shall be prepared based on essential physical criteria as per Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India enclosed as **Annexure - B**.
- ii) Since, the proposed sand quarry project is 3 kms away from Hirakud reservoir. No replenishment study has been undertaken and natural replenishment is assumed with 1.5 mtr depth of mining with replenishment factor of 100%, Regular replenishment study to be conducted and report to be submitted.
- iii) Provision of Bio-toilet shall be made at the site.

- iv) Avenue plantation and plantation on both sides of the haulage road in consultation with/ on the advice of concerned Forest Department, Government of Odisha & W.R. Department Government of Odisha as well.
- v) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.
- vi) Sedimentation flow shall be determined through a study during pre-monsoon, monsoon & post-monsoon period.
- vii) Adequate measures shall be taken to prevent unauthorised mining.
- viii) Permission from the BDO shall be obtained in case of use of Panchayat Road (if any) for transportation of sand including maintenance of the same by the PP.

ITEM NO. 05

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S BALAJI ENGICONS PVT. LTD. FOR TABADABAHAL CLUSTER BUILDING STONES/ROAD METAL MINES DEPOSIT OVER AN AREA OF 19.18 HA OR 47.40 AC LOCATED IN VILLAGE TABADABAHAL, TAHASIL - RENGALI DISTRICT - SAMBALPUR OF TAHASILDAR, RENGALI – EC.

1. The Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) carried out for Tabadabahal Building Stone cluster over an area of 19.18 Ha(6 nos of individual lease) located at Village Tabadabahalin Rengali Tahasil of Sambalpur District, Odisha. The cluster consists of 6 individual mining leases located within the cluster area of 500m. The land use pattern of the mining cluster area comes under the non forest agricultural land (Abada Ajogya Anabadi), Dungri kissam, Tabadabahal Cluster is featured in the Survey of India Toposheet No. 73C/2 and bounded between the latitudes 21°34'45.3"N to 21°35'07.2"N and longitudes 84°07'06.7"E to 84°07'30.4" E.
2. The EIA/ EMP study has been carried out based on the ToR approved by SEIAA, Odisha by M/s Kalyani Laboratories Private Limited Bhubaneswar. Kalyani Laboratories private limited (MoEF&CC and NABL accredited Lab) has gathered required baseline data for pre monsoon season (1st Oct 2020 to 31th Dec 2020) and accordingly prepared the EIA / EMP report. As per the estimation the geological reserve is found to be 2299270 m³ respectively for stone & mineable reserve for stone is found to be 1469702m³ respectively. During the total plan period (five years), it has been targeted to excavate 1326370m³ stone. The production of maximum building stone (25088 m³ from Quarry 1, 350152 m³ from Quarry 2, 25620 m³ from Quarry 3, 25024 m³ from Quarry 4, 500310m³ Quarry 5, 400176 m³ from Quarry 6).
3. The name and address of the successful bidders for the individual 6 mines within the cluster is given in table below:

Quarry. No.	Area of the Mines (Ha)	Name of the Lessee	Plot Details
1.	0.789	Sri Braja Kishor Das, Managing Partner of M/s Sumi Trading Co., S/O. NrusinghaCharan Das, At/Po- Dhankouda, Ps. Sadar, Sambalpur, Odisha	774
2.	3.60	Sri Braja Kishor Das, Managing Partner of M/s Sumi Trading Co., S/O. NrusinghaCharan Das, At/Po- Dhankouda, Ps. Sadar, Sambalpur, Odisha	780, 781/1349, 784, 782 & 738
3.	0.809	Sri Braja Kishor Das, Managing Partner of	854

Quarry. No.	Area of the Mines (Ha)	Name of the Lessee	Plot Details
		M/s Sumi Trading Co., S/O.NrusinghaCharan Das, At/Po- Dhankouda, Ps. Sadar, Sambalpur, Odisha	
4.	0.99	Sri Braja Kishor Das, Managing Partner of M/s Sumi Trading Co., S/O. NrusinghaCharan Das, At/Po- Dhankouda, Ps. Sadar, Sambalpur, Odisha	856 & 857
5.	7.689	Shree Balagi Engicons pvt. Ltd Director-Sri Sushil Kumar Agrawal, Dist: Sambalpur, Odisha	758, 760/1364, 763/1364, 760, 763/1184, 761, 762, 763, 765
6.	5.30	Shree Balagi Engicons pvt. Ltd Director-Sri Sushil Kumar Agrawal, Dist: Sambalpur, Odisha.	42/6
Total	19.18	--	--

4. Dabadabahal has comprised mineralised area of Dabadabahal Building stone mines over 19.18 Ha. The geological reserve (Proved, Probable & Possible) for building stone/road metal has been estimated as 2299270 cum over the Cluster. It is evident that demonstrated the mineable reserve (Proved & Probable) for building stone/road metal worked out to be 1469702 cum over the Cluster. Method of mining will be opencast semi mechanized. Handling of rock mass will be done both manually and by excavators. Handpicks, spade, chisel, hammer will be used by manual labors for sorting and sizing. Loosening of rock mass will be done by drilling and blasting Based on the demand of building stone/road metal as revealed by the respective lessees, a maximum of 268104cum per annum of building stone/road metal will be extracted per annum from the Cluster area.

5. Annual Production of Building Stone/Road Metal during Plan Period

Year	Tabadabahal stone quarry no-1/1.95ac	Tabadabahal stone quarry no-1/8.89ac	Tabadabahal stone quarry no-2/2.45ac	Tabadabahal stone quarry no-2/2ac	Tabadabahal stone quarry no-4/19ac	Tabadabahal stone quarry no-5/13.11ac	Total (cum)
First	4816	68816	4970	4800	99450	79380	262232
Second	4872	69736	5040	4928	99620	79758	263954
Third	5040	70288	5180	4736	99960	80136	265340
Fourth	5152	70472	5180	5248	100300	80388	266740
Fifth	5208	70840	5250	5312	100980	80514	268104
Sub-Total	25088	350152	25620	25024	500310	400176	1326370

6. A total of 326 workers (Skilled-50nos., Semi-skilled-100nos. and Un-skilled-190 nos & Mines Manager/Mine Permit Manager-6nos) will be employed during mining operation.
7. It is assumed that around 2/3rd of the generated waste will be transported to the crusher site along with valuable building stone/road metal where these will be sorted out. The remaining 1/3rd of the total waste will be separated at the quarry head and will be stacked in the temporary waste dump of respective quarry lease and will be utilised by the lessee for making of mine road and allied infrastructures.
8. Tabadabahal Cluster is featured in the Survey of India Toposheet No. 73C/2and bounded between the latitudes 21°34'45.3"N to 21°35'07.2"N and longitudes
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84°07'06.7"E to 84°07'30.4" E. The cluster is located at a distance of 24 Km from District headquarters of Rengali, and is at a distance of 295Km from the state capital Bhubaneswar. The highest and lowest altitude of the cluster is 196mRL and 164mRL respectively.

9. There is chance that during monsoon the run-off water may find access to some of the quarries in the Cluster-1.
10. There are no seasonal or perennial nala flows within the lease area. However due to the earlier mining activities there are various mining pits filled with water exists within the lease area. During the rainy season the rain water flows in the hillock through various rain cuts and drains water to the existing quarry.
11. 45 KLD of potable water will be required from which 14 KLD of water will be required for drinking & domestic purpose. 21 KLD of water is suggested to be utilized for dust suppression and 10 KLD for plantation purpose. The water requirement by individual lease will be 7.5mKLD (max). The water will be sourced by tanker by the individual lessee to cater the water requirement. Water will be sourced from ground water and rain water harvesting from the existing quarry.
12. Green belt will be developed over an area of 3.388 ha along the safety zone of the cluster besides individual safety zone of the cluster. Further during the conceptual period 15.795 Ha of the lease area will be reclaimed with plantation.
13. The total cost of the project is Rs. 400 lakhs and the updated capital cost and recurring cost (per annum) for the environmental facilities for the proposed mining project works out to be Rs. 38 lakhs and Rs. 14 lakh / year respectively.
14. The Public Hearing in respect of Environment Clearance for Tabadabahal Cluster Building Stone mines Deposit over an area of 19.18 Ha at/ Mouza- Tabadabahal, Tahasil- Rengali of Sambalpur District, Odisha was conducted on 21.12.2021 at 11.00 AM at Bhoi munda Football field, Mouza- Tabadabahal, Dist: Sambalpur in accordance with the MoEF&CC EIA notification 2006 and subsequent ammendments. The major issues raised during public hearing are control of vibration during blasting, peripheral developmental activities to be monitored by the village committee, health and education facility etc. In compliance to the public hearing a time bound action plan has been prepared and a total of Rs 14.20 Lakhs is proposed for social developmental expenditure by the cluster.
15. The project proponent along with the consultant **M/s Kalyani Laboratories Pvt. Ltd., Bhubaneswar** made a detailed presentation on the proposal before the SEAC.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Kalyani Laboratories (Pvt) Ltd. Pahala, Bhubaneswar on behalf of the proponent, the SEAC approved the EIA/EMP report in cluster approach and recommended the following:**

- a) The SEIAA, Odisha may consider to grant Environmental Clearance to individual lease (for **06 nos.** quarry leases) in cluster with specific conditions as per **Annexure-C** after receipt of individual applications from the lessee in cluster along with following documents.
 - i) Filled in form-I of individual lease
 - ii) Prefeasibility report of individual lease

- iii) EMP of individual lease.
- iv) Approved Mining Plan of individual lease
- v) DLC status of the lease area from concerned DFO as certified by the concerned Tahasildar.
- vi) An Undertaking by the lessee not to use wagon drilling blasting to be submitted. Accordingly, specific condition to be stipulated in EC of individual lease.
- vii) No storage and usage of blasting materials/explosives inside the lease area without license / permission / authorization from competent Authority as per Indian Explosives Rules, 1983 shall be ensured by the lessee. An undertaking to this effect shall be submitted by the lessee. Accordingly, specific condition to be stipulated in EC of individual lease.
- viii) An undertaking to obtain NOC from CGWA and permission from WR department, Govt. Of Odisha for use of ground water. Accordingly, specific condition to be stipulated in EC of individual lease.
- ix) Village road shall be repaired & maintained by Project Proponent as committed during public hearing.
- x) Controlled and programmed blasting for each individual mine shall be done and not more than one mine shall allowed for blasting at a time.
- xi) Green Belt shall be developed in the space in between mines.
- xii) All the 06 individual quarry lessee to create a common forum and contribute funds to it for grading, Compaction and maintenance of common haulage road, Provision of piped water with semi-circle Sprinkler system for suppression of dust on the common haulage road, and provision of thick, multilayer and a continuous green belt around the cluster excluding the entry and exit gate for prevention of pollution and noise going out of the mines.

ITEM NO. 06

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF BHATIA ENERGY AND MINERALS (SUNDARGARH) PVT. LTD. FOR RE-VALIDATION OF ENVIRONMENTAL CLEARANCE ORDER NO. 1218/SEIAA DATED 05/04/2021 W.R.TO 0.96 MTPA CAPACITY COAL WASHERY AT BARPALI, SUNDARGARH ODISHA OF SRI KISHAN AGRAWAL – MOD EC.

1. The proposal is regarding revalidation of 0.96 MTPA capacity Coal Washery project of **Bhatia Energy and Minerals (Sundargarh) Private Limited**. The said project located at village Barpali, Village Panchayat: Duduka, Tehsil : Hemgir, in Sundargarh, Odisha.
2. The project was initially proposed by M/s Bhatia Energy & Minerals Pvt. Ltd, during the year 2011 and accordingly the project granted Environmental Clearance from SEIAA, Odisha vide letter no. 3193/SEIAA dated 06/05/2015.
3. Subsequently the said EC has been transferred from **Bhatia Energy & Minerals Pvt. Ltd.** to **Bhatia Energy And Minerals (Sundargarh) Private Limited** vide letter no. 1218/SEIAA dated 05/04/2021 issued by SEIAA, Odisha.

4. The validity period of EC granted vide letter no. 3193/SEIAA dated 06/05/2015 was up to 05/05/2020. Further w.r.t. MoEF&CC Notification vide no. S. O. 1141 (E) dated 29/04/2015, the validity of the EC is extended up to 05/05/2022.

5. Implementation status of the existing EC:

The Project is under construction. The status of completed work as on 31/12/2021 are as follow;

- (i) Financial Arrangement: Out of total Project Cost of Rs. 21.89 Crores around 60% has been arranged.
- (ii) Land acquisition: Total land of 8.24 acres has been acquired.
- (iii) Preparation of DPR and Technical drawings has been completed.
- (iv) 40% of Earth work, RCC work and Brick work have been completed.
- (v) 20 % of Structural work (Fabrication work) has been completed.
- (vi) Permission for 40 kw has been taken as Construction Power. Permission for 1 MW for Washery Operation will be obtained before commissioning of the plant.

6. Reason for seeking validity extension of EC

- a) Due to Change of Management, financial difficulties and outbreak of COVID-19 Pandemic, the project has been delayed.
- b) It is presumed that it may not be completed within the EC validity time limit of 5th May 2022.

7. Schedule of completion of balance facilities under the EC

Sl. No.		
a)	Earth work including excavation and back filling & Compaction work will be completed	by May, 2022
b)	All Civil work including RCC work, PCC work & Boundary work will be completed	by December, 2022
c)	Structural work such as Reinforced Concrete Works, Steel Works & Plumbing works fittings will be completed	by December, 2023
d)	Finishing work like Brick laying, Wall Plastering, Painting and Floor covering will be completed	by December, 2023
e)	All Mechanical works such as Steel column, Fabrication, Pipe line work and Equipment Commissioning work will be completed	by December, 2023
f)	All electrical works including Conduit works, Cable pulling and laying, MCC, PLC Panel fillings will be completed	by December, 2023

8. No violation under EIA, 2006/court case/show cause/direction has been issued related to the said project.

9. The Ministry of Environment, Forest and Climate Change, Govt. of India issued notification vide S.O. No. 1141 (E) dated 29.04.2015 and S.O. No. 2571 (E) dated 31.08.2015 under the provisions of the EIA Notification 2006 regarding extension of Validity of Environmental Clearance.
10. The project proponent along with the consultant **M/s ERS(I) Pvt. Ltd., Bhubaneswar** made a detailed presentation on the proposal before the SEAC.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s ERS(I) Pvt. Ltd., Bhubaneswar**, the SEAC decided to take decision on the proposal after receipt of the following information / documents from the proponent.

- (i) Project proponent to submit condition wise compliance of EC with due authentication by Regional office, MoEF & CC, Bhubaneswar including their recommendation / views as to the proposed for re-validation of EC order.
- (ii) Project Proponent to submit the certification from chartered Engineer(s) as to the completion of different engineering / construction activities of the project and left over through a PERT Network.


Secretary, SEAC

Approved

Chairman, SEAC

STANDARD ENVIRONMENTAL CLEARANCE CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR SAND MINING

Stipulated Conditions:

1. The project proponent should carry out River bed sand mining manually by engaging local laborers in force to check over exploitation of sand at the source.
2. Any change in the plan or quantity to be produced shall require prior approval of SEIAA.
3. There shall be a 'no working zone' to protect the embankment on both sides, road or rail bridge in the vicinity, if any, dam, weir, water intake structure of irrigation or drinking water project, or any cross drainage structure. 10 % of the width of river shall be left intact along the embankments on both sides as 'no mining zone'. Further, no mining shall be allowed within 200 m of any existing structures dam, weir, water intake structure of irrigation or drinking water project, or any cross drainage structure. In case of River Bridge, this no mining zone shall extend upto a minimum stretch of 200 meters from the bridge and it may extend upto 500 meters in sensitive locations. The lease area shall be accordingly curtailed to carve out the actual sand mining area within the leasehold. Exact map of the lease area, and the 'no mining zone' shall be drawn to scale, showing the DGPS coordinates of all corner points, and the location of the bridge, embankment, extraction route & other structures; and such map has to be submitted to SEIAA by the project proponent through the Tahasildar within three months of the date of issue of the EC. The quantum of sand allowed to be extracted will be worked out on the basis of the actual working area.
4. The lease area and the actual working area shall be demarcated on the ground by erecting durable masonry /concrete pillars by the project proponent.
5. The project proponent shall take prior statutory and regulatory clearance as required from the concerned authorities in respect of the project, before carrying out any operation.
6. Mining is not permissible within the water channel or stream flow area. No stream shall be diverted for the purpose of mining and no natural water course shall be obstructed. The mining or any ancillary activity shall not in any way disturb the flow pattern of the river water during the non monsoon period. There shall be no sand mining in the river during the rainy season or when there is flow of water in the river.
7. Sand mining operations shall not affect the existing sources for irrigation / drinking water / industrial purpose.
8. The natural sand dunes, if any, near or surrounding the lease area shall not be disturbed.
9. No transportation of the minerals shall ordinarily be allowed on any road passing through villages/habitations/forest land without prior explicit permission. Transportation

of minerals through existing rural roads can be allowed only by the concerned Govt. Department/BDO and only after required strengthening, such that the carrying capacity of road is increased to handle the sand truck traffic. The project proponent shall bear the cost towards the widening and strengthening of existing public roads in case the same is proposed to be used for the project. No movement on any road is allowed on existing village road network without appropriately increasing the carrying capacity of such roads. Project proponent shall ensure that the road may not be damaged due to transportation of the mineral and transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and traffic density. Plying of sand extraction trucks may be allowed on roads / path ways passing close to schools, temples, hospitals and such other public places only with prior written permission of competent authority.

10. Vehicles hired for transportation of sand from the site should be in good condition and should have pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.
11. The vehicles shall not be overloaded and shall be covered with Tarpaulin. The Tahasildar may collect an appropriate road maintenance levy from the lessee as part of the lease conditions on the basis of quantum of sand transported, and utilize the proceeds of the levy for proper maintenance of the extraction paths and roads to prevent their degradation on account of plying of sand trucks.
12. The project proponent shall take all precautionary measures against causing damage to flora and fauna of the locality. The PP shall plant and nurse to full establishment a minimum of 50 number of saplings of native tree species along the approach roads, river banks and in community areas in consultation with the Gram Panchayat.
13. Water spray should be made on the road/extraction paths to control dust emission during transportation of sand.
14. The Project Proponent shall undertake phased restoration, reclamation and rehabilitation of land affected by mining and completes this work before abandonment of mine.
15. Environmental Management Plan (EMP) shall be implemented by PP to ensure compliance with the environmental conditions specified above. The year wise funds earmarked for environmental protection measures shall be kept in separate account and shall be spent according to the plan proposed. Year wise progress of implementation of EMP shall be reported to the SEIAA, Odisha and OSPCB along with the compliance report.
16. The proponent shall take necessary measures to ensure that there is no adverse impact of the mining operations on the human habitation if any, existing nearby.
17. It shall be mandatory for the project management to submit quarterly compliance reports on the status of implementation of the above stipulated environmental safeguards to the SEIAA, Odisha / SPCB, Odisha/ Regional Office of the MoEF&CC, Bhubaneswar, in hard and soft copies on 1st day of January, April, July, October of each calendar year, failing which EC is liable to be revoked.

18. River Bank stabilization shall be made through stone patching. Plantation of adequate number native species on river banks and both sides of haulage roads shall be made.
19. Since NH200, Kuccha Road and temple are only at a distance of 800 mtr, 570 mtr and 500 mtr respectively, all traffic safety measures shall be taken to avoid any kind of accidents.
20. Bio - toilet provision shall be made.
21. As raised during public Hearing and committed by PP, Loknathpur Sasan village road shall not be used for transportation of sand.
22. Stone patching on river bank with plantation in-between and the ramp construction shall be done in consultation with and advice of concerned W.R.Deptt, Government of Odisha.
23. Necessary sprinkling on Haulage Road and Avenue plantation shall be done.
24. At the end of mine closure, the proponent shall immediately remove all the sheds put up in the quarry and all the equipment in the area before closure of the quarry.
25. The conditions stipulated in the environmental clearance will be closely monitored on the ground by the lease granting authority, i.e. the Tahasildar, who shall ensure compliance of the stipulated conditions and take corrective measures promptly in case of any non- compliance and also ensure that the project proponent submits quarterly compliance reports.
26. The concerned Regional Office of the MoEF&CC/ SPCB, Odisha shall periodically monitor compliance of the stipulated conditions as applicable for this project. The project authorities should extend full cooperation to the MoEF&CC officer(s)/SPCB officer(s) by furnishing the requisite data / information / monitoring reports.
27. A copy of the clearance letter shall be sent by the proponent to concerned Gram Panchayat /Panchayat Samiti /Zilla Parisad /Municipal Corporation / Urban Local Body as the case may be.
28. Project proponent shall obtain Consent to Operate from the OSPCB 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 State Pollution Control Board.
29. The SEIAA, Odisha may revoke or suspend this EC, if implementation of any of the above conditions is not satisfactory. The SEIAA, Odisha reserves the right to alter /modify the above conditions or stipulate any further condition in the interest of environment protection.
30. The Project Proponent (lease holder) shall inform the SEIAA of any change in ownership of the mining lease. In case, there is any change in ownership or mining lease is transferred, then mining operation can be carried out only after transfer of EC as per provisions of the para 11 of EIA Notification, 2006, as amended from time to time.

31. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this environment clearance besides attracting penal provisions in the Environment (Protection) Act, 1986.
32. 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.
33. 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.
34. 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.

Annexure - B

ESSENTIAL PHYSICAL CRITERIA AS PER ENFORCEMENT AND MONITORING GUIDELINES FOR SAND MINING, JANUARY 2020 OF MOEF&CC, GOVT. OF INDIA

Sl. No.	Essential Criteria	Reference
1.	"No Mining Zone": 1/4th the part of the river width (excluding 3/4th the central part of the river width) on both sides of the river towards the river bank	4.1.1 (Para - e) Page - 16
2.	a) Distance between two clusters : ≥ 2.5 km b) Area of mining lease area in a cluster: ≤ 10 ha.	4.1.1 (Para - k) Page - 19
3.	Concave River Bank : No extraction of sand	
4.	No mining if a) Upstream: Lease is 1 km from major Bridge and high ways or $5(x)$ of the Bridge / public civil structure / water intakes point subject to lease is located at a minimum 250 meter distance. Where x = Span of the bridge. b) Downstream side: Lease is 1 km from the major bridge and Highways Or $10x$ of the bridge / public civil structure / water intake point Subject to lease is located at a minimum distance of 500 meter where x = span of the bridge	4.3 (Para - h) Page - 23
5.	Mining depth : ≤ 3 meter (maximum 3 meter)	4.3 (Para - m) Page - 24
6.	Mining distance from river bank: $1/4^{\text{th}}$ of the river width, But subject to not less than 7.5 meter	4.31 (Para - m) Page - 24
7.	Area for removal of minerals : $\leq 60\%$ of mine lease area	4.3 (Para - s) Page - 25
8.	Minable sand per ha. Available for actual mining : $\leq 60,000$ MT/Annum	
9.	Regular replenishment study and replenishment rate	

ANNEXURE -C

SPECIFIC CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE OF INDIVIDUAL MINING LEASE OF M/S BALAJI ENGICONS PVT. LTD. FOR TABADABAHAL CLUSTER BUILDING STONES/ROAD METAL MINES DEPOSIT OVER AN AREA OF 19.18 HA OR 47.40 AC LOCATED IN VILLAGE TABADABAHAL, TAHASIL - RENGALI DISTRICT - SAMBALPUR OF TAHASILDAR, RENGALI – EC.

1. This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court of Odisha, Hon'ble NGT and any other Court of Law, if any, as may be applicable to the quarry lease.
2. The Environmental Clearance is subject to obtaining requisite NBWL Clearance, if any, from the Standing Committee of National Board for Wildlife for Mining project.
3. The lessee shall implement the Pollution Control Measures and safeguards as proposed in the approved EIA/Environment Management Plan (EMP) in the cluster approach.
4. The lessee shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and records maintained; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smokers, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. Recommendations of National Institute for Labour for ensuring good occupational environment for mine workers would also be adopted; All the old age people of the surrounding villages may be provided medical facilities.
5. Transport of minerals shall be done either by dedicated road or it should be ensured that the trucks/dumpers carrying the mineral should not be allowed to pass through the villages. The lessee shall ensure that the road may not be damaged due to transportation of the mineral; and transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and density.
6. The lessee shall obtain NOC from concerned Block Development Officer (BDO) for usage of haulage road/Panchayat Road.
7. The lessee shall ensure safety of human life and livestock from accidents in case village / any habitation is very nearby the mining lease area.
8. The lessee shall ensure the safeguard and wellbeing of villagers and school, regular health monitoring of all residents in the area and the compliance Report shall be submitted to the regional office of the MOEF & CC and SEIAA, Odisha.
9. The lessee/concerned Tahasildar shall follow the detailed procedure for De-reservation of Gochar kissam land if involve in the lease area before going for mining activity.
10. Under no circumstances, the lessee shall use wagon drilling blasting during mining activity.
11. The lessee shall not store and use blasting materials/explosives inside the lease area without obtaining license/permission/authorization from competent Authority as per Indian Explosives Rules, 1983.

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12. The lessee shall obtain NOC from CGWA and permission from WR department, Govt. Of Odisha for use of ground water.
13. The lessee shall complete the rejuvenation of ponds if any within lease area on priority basis after obtaining Environment Clearance.
14. No mining activities shall be allowed in forest area, if any, for which the Forest Clearance is not available.
15. No change in mining technology and scope of working should be made without prior approval of the SEIAA, Odisha.
16. No change in the calendar plan including excavation, quantum of mineral and waste should be made.
17. Mining shall be carried out as per the provisions outlined in the approved mining plan.
18. Protection of vegetation in the surrounding areas, and proper storage of solid waste, subgrade ore and their use have to be given priority during mining operation.
19. The illumination and sound at night at the lease area 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. Project Proponents 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.
20. 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.
21. The soil to be generated during mining activity shall be stacked in the earmarked temporary soil stack and shall be utilized for the plantation purpose to be undertaken around the respective hill/patch and adjacent to haul roads of the same in lease area.
22. The abandoned mine pit shall be converted to rain water storage tank and the rain water stored in pit shall be utilized for plantation as well as dust suppression.
23. Total Plantation shall be carried out within 2-3 years of mining activity and maintenance shall be continued in remaining years. Trees present in mining area shall be uprooted & transplanted in safety zone.
24. All the lease holders in a cluster to join hand through a registered MOU on cluster to cluster basis for laying of permanent pipeline by the side (one side) of the main haulage road with half-moon automatic sprinklers system for suppression of dust during movement of vehicles.
25. All the lease holders in a cluster should join hand for grading of the main haulage road to maintain the gradient facilitating smooth movement of vehicles.
26. The same cluster approach to be taken for development of green belt all around the cluster area baring catch dams for flow of runoff water during rainy season. These activities may be coordinated by the leadership in the cluster leases or RQP for the cluster with help from Revenue Inspector of the area for better results.

27. The SEIAA, Odisha may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
28. Any appeal against this 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.
29. The above-mentioned stipulated conditions shall be complied in a time-bound manner. Failure to comply with any of the conditions mentioned above may result in cancellation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.