PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE, ODISHA HELD ON 18TH FEBRUARY, 2022

The SEAC met on 18th February, 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. 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 LA DEVELOPERS FOR RESIDENTIAL & COMMERCIAL PROJECT OVER AN BUILT-UP AREA 56147.44 SQR LOCATED AT MOUZA- NAYAPALLI & MADHUSUDAN NAGAR, DISTRICT-KHURDA, BHUBANESWAR OF SRI DILIP KUMAR MOTWANI – EC.

- M/s LA Developers proposes to construct a Residential cum Commercial project located at 1392, 1393, 1398, 1398/3312 & 3313, 1396/3382, 1394/4908/ & 4909, 1394/4966 & 4967, 1341/2127 & 2128 & 2129, 897,897/1822, 898, 899, 900, 901/1740 & 1776, 902/1777, 902/1754, 902/1971, 902, 903, 903/1755, 904/1736, 904/1976, 904/1972, 904/1837, 904/1909, 911,911/1495 &1970, 911/1495, 912/1727, 893/1906, 896, 895 of Mouza-Nayapalli & Madhusudan Nagar, District Khurda, Bhubaneswar, Odisha on a land measuring 2.90 acres or 11756.34 m².
- 2. The nearest Railway Station is Bhubaneswar Railway Station 2.6 km (SE) away from the project site and Biju Patnaik International Airport is at a distance of approx. 3.2 km in SW direction from the project site.
- 3. 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.
- 4. The site is coming under development plan of Bhubneshwar Development Authority. The project having total 15 floors (LB+UB+G+14). The maximum height of the building will be 44.51 m.
- 5. The total plot area is 11756.34 sqm. Net Plot Area is 9590.78 sqm.
- 6. The permissible ground coverage will be 3836.31 sqm (39.99%) and proposed Ground Coverage will be 3053.66 (31.83%).
- 7. The permissible FAR will be 57544.68 sqm (@ 6 of plot area) and proposed FAR will be 40798.37 (4.253).

- 8. The Non-FAR for the project will be 15349.07 sqm.
- 9. Total Built up area for the project will be 56147.44 sqm.
- 10. The total population of project after operation of the project will be 1587 persons.
- 11. Water Requirement: The total water requirement will be Ground water met through Bore well which is approx. 170 KLD, out of which total domestic water requirement is 140 KLD. The total domestic water will be 140KLD, out of which fresh water requirement is approx. 104 KLD & flushing water will 57 KLD.
- 12. **Waste water details:** The project will generate approx. 140 KLD of wastewater. The wastewater will be treated in an onsite STP of 170 KLD capacity. The treated water (126 KLD @ 90% of total waste water) will be reused for flushing (57 KLD), horticulture (10 KLD). Surplus treated water during dry season (59KLD), monsoon season (68 KLD) and winter season (65KLD) will be discharged to external sewer with the requisite permission.
- 13. Total 16 Rain Water Harvesting (RWH) pit at different locations will be constructed.
- 14. **Parking Requirement:** Total parking area requirement will be 12377.09 m². And Total Parking i.e. 438 ECS will be provided.
- 15. **Power Requirement:** The power supply will be supplied by State Electricity Board. The requirement load for the project will be approx. 1247 kVA.
- 16. Power Backup: There is provision of 2 Nos. of DG sets of total 1500 kVA (2x 750 kVA) capacity for power back up out of which one DG set of 750 KVA will be kept as standby. Silent DG sets (Radiator cooled). Separate generator yard will be constructed for the residential block.
- 17. The total solid waste generation will be 675 kg/day.
- 18. Total green area measures 2416.08 m² i.e. 25.16% of the net plot area.
- 19. Total Project cost is `99.156 Crores including land and development cost.
- 20. The Environment consultant **M/s Grass Roots Research & Creation India (P) Ltd** along with the proponent has made a presentation on the proposal before the Committee.

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

- i) Land document with kissam of the land (Sabik and Hal) and conversion of land to Gaharabari from Revenue Authority before start of the construction work.
- ii) Layout of internal drainage map and their fallout to external public drain.
- iii) Copy of permission of the concerned authority of the drain / sewer to discharge the treated water from project to the nearby drain including the ownership of the land/ ROW of the land between the project boundary and the public drain. In case of sewer, the schedule of operation of the same from the appropriate authority be submitted
- iv) Parking in terms of space and ECS for 4 wheelers, 2 wheelers including bicycles be calculated separately for dwellers & visitors (floating population) and commercial indicating the norm as well and showing it in the layout map & be submitted. Separate entry and exit gates for residential and commercial to be submitted in layout. Parking for

- 438 ECS has been stated to be provisioned as against 795 ECS as per MOEF&CC, Govt. of India guide norm as mentioned by PP. The difference be explained.
- v) Copy of Traffic Study be submitted and it should cover all sensitive intersecting traffic points.
- vi) Break up of greenbelt of plot area in terms of plantation and landscape. Revisit the detail calculation of 25% green belt in terms of norm of MoEF&CC, Govt. of India with dimension continuous around the boundary showing in the layout map be submitted
- vii) Recommendations of Fire Safety Deptt. with peripheral road fir movement of fire fighting vehicles and fire control measures
- viii) Plan with detail calculation of solar power consumption vis- a- vis the generation and as percentage of total power demand be submitted.
- ix) Procedure to be undertaken to reduce noise level within limit during construction phase so that it is not affected to nearby vicinity and employees.
- x) Procedure for regular monitoring of quality of treated water to be discharged to the drain.
- xi) Physio-chemical analysis of ground water to be submitted.
- xii) Copy of letter from PHED Deptt. for refusing to provide water supply to project site and also copy of refusal letter of WATCO for water supply to the project. Quality of ground water (physico-chemical analysis/parameters), if used, be submitted. NOC from CGWA & permission from Water Resources Department, Government of Odisha need to be submitted for use/drawl of ground water. Quantity of rain water to be harvested vis- a- vis the norm of CGWA be confirmed as against the proposed drawl of ground water
- xiii) Layout map for commercial and residential complex.
- xiv) Copy of letter of in-principal approval of building plan by BMC.
- xv) Internal drain map.
- xvi) Use of Compost converter for treatment of Sewarage solid waste
- xvii) STP and ETP process details with technology adopted and post monitoring schedules
- xviii) Copy of Airport Authority Clearance for height of the building.
- xix) Stack height and position justification.
- xx) In view of various options of Water supply provision, WTP is to be shown in the layout plan.
- xxi) Provision of Lift, Light, Ventilation, and Fire Safety from the lowest basement to the terrace roof for Health and Safety of the Dwellers to be incorporated in the layout plan.
- xxii) Provision of numbers with the capacity of Over Head Tank for Fresh Water for Drinking and Bathing purpose and Treated STP Waste Water exclusively for Toilet Flush with Dual Plumbing System to be incorporated in the Project.
- xxiii) Submission of list of measure Electrical equipment like Transformer, DG, Lifts and other Electrical Appliances, Fixtures, Instruments and Devices likely to be installed in the Project along with its Star Rating as per BEE, Ministry of Power, Govt. of India, New Delhi as per the provision of Energy Conservation Act 2003.

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S FERRO ALLOYS CORPORATION LTD FOR EXPANSION OF OSTAPAL CHROMITE MINE (ML AREA: 72.843 HA) FOR INCREASE IN PRODUCTION FROM 0.2 MTPA TO 0.240 MTPA CHROMITE ORE (ROM) WITH MAXIMUM EXCAVATION OF 0.579 MILLION CUM PER ANNUM AND BENEFICIATED CHROME ORE OF 0.1 MTPA AT VILLAGE- GURUJANGA, TAHASIL SUKINDA, DISTRICT JAJPUR OF SRI SANDEEP KITTANA ACHARYA – EC

- 1. The mining lease over 72.843 Ha, which comes under the part of Daitari Protected Forest and Village Gurujanga, was granted to M/s FERRO ALLOYS CORPORATION LIMITED ("FACOR") on 13/08/1985 for 20 years i.e., from 13/08/1985 to 12/08/2005. The lease was expired on 12/08/2005, but it has continued to conduct the mining operations in the said lease under the deemed extension provisions of section 8 of the MMDRA, 1957 with Rule-24-A(6) of the MCR, 1960 till 21/08/2016. As per the MMDR amendment Ordinance, 2015 under sec. 8A, the lease period has been deemed to be extended for a period of fifty years i.e., from 13/08/1985 to 12/08/2035. The supplementary Lease Deed has been executed on 22/08/2016. Thereafter, Hon'ble NCLT Cuttack Bench under the provisions of Insolvency and Bankruptcy Code (IBC)-2016 vide its order dt. 30.01.2020, has approved the resolution plan of M/s Sterlite Power Transmission Limited (Vedanta Ltd.). Pursuant to the said order with of NCLT Cuttack, the Board of Directors of M/s. FERRO ALLOYS CORPORATION LTD. have been changed with effective from dt. 21.09.2020. Consequently, the Board of Directors have appointed the nominated owner of the company vide its resolution dt. 27.09.2020, in accordance with the statutory provisions.
- 2. The current project involves mining of Chrome Ore (Chromite) through a Fully Mechanized Opencast mining method using HEMM and Deep Hole Blasting. The proposal is for increasing the production from 0.20 MTPA to 0.240 MTPA of Chromite Ore (ROM) with maximum excavation of 0.579 Million Cubic Meters per Annum. Total area under mining lease is 72.843 Ha. There is an existing 0.1 MTPA Chrome Ore beneficiation plant within the mine lease area. The area consists of 68.424 Ha forest land as per Sabik settlement records. Estimated capital cost is 88.85 Crores.
- 3. The project falls under schedule "1(a), (i) Mining of Minerals" of EIA notification 2006 and is a category 'B' project.
- 4. Total Geological Reserves of Chromite Ore as on 01.10.2020 are estimated to be 10.128 Million tonnes. Of these, Mineable reserves have been assessed to be 4.389 Million tonnes.
- 5. Based on the present reserve estimates and proposed production program, the life of mine is estimated to be about 11 years.
- 6. Fully mechanized Opencast mining is proposed to be carried out during the plan period. The operations like digging, excavation and removal of ore in conjunction with deep hole drilling and blasting will be done with the help of heavy earth moving machineries. Controlled blasting will be adopted for excavation of chromite ore.
- 7. Mining has already intersected ground water table of the area. The estimated total manpower requirement for the mining project is about 536 persons.
- 8. Water will be required in large amounts for the mining operation, dust suppression, plantation, workshop, Wheel washing system, Ore processing in COB plant, vehicle wash, domestic needs, environmental management etc. Total water withdrawal from the Ostapal Proceedings of the SEAC meeting held on 18.02.2022

Mine is estimated to be about avg. 3400 KLD. Permission from Central Ground Water Authority (CGWA) vide Letter No. CGWA/NOC/MIN/REN/1/2021/6481 for withdrawal of ground water of 100 KLD through two existing bore wells and 3300 KLD through dewatering mine seepage from mine pit.

- 9. The use of electricity will be for lighting/ illumination/ pumping purposes in mining operations and will be obtained from GRIDCO. The electricity/DG power will be provided at the office, camp, and mines. The contract demand is 600 KVA and the total connected load is about 894 HP.
- 10. A total of about 536 persons will be required to carry out the opencast mining operation.
- 11. No R&R is proposed for the project.
- 12. The SEAC in its meeting held on 05.01.2022 recommended that conducting public hearing for the proposal may be exempted under clause 7(ii) of EIA Notification, 2006 and amendment thereafter as there will be no increase in pollution load due to mere 20% increase in production capacity and in similar situation EAC of MoEF&CC, Govt. of India has exempted for conducting public hearing many such mines. Accordingly, the SEIAA, Odisha has issued ToRs for EIA study vide letter no. 3883/SEIAA, dated 28.01.2022 exempting public hearing as recommended by the SEAC, Odisha.
- 13. The Environment consultant **M/s Visiontek Consultancy Services Pvt Ltd, Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee.

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

- List of additional equipments to be used for expansion and thereby how it reduces pollution load along with technical explanation of how the pollution load with regard to OB, Water consumption etc are reduced in spite of capacity enhancement.
- 2. Details of technology will be used/upgraded for expansion to reduce pollution load in plant in comparison to existing process in plant.
- Procedure for periodically analysis and monitoring of effluent, tailing pond outlet, nearby water bodies and soil for various parameters with special reference to hexavalent chromium at outlet of ETP and tailing pond etc.
- 4. Analysis of hexavalent chromium on soil, ground water of unit existing and future expansion.
- 5. Present and proposed quantity of discharge of treated water to Damsala nallah and chemical analysis of hexavalent chromium of the Damsala nallah water.
- 6. Brief write up why proposing for expansion when remaining mineable reserve can be extracted within existing production limit.
- 7. Under consultation with District Administration one pipe supply to atleast one village should be covered.
- 8. Calculation part how pollution load decreasing item wise.
- Quantity and quality of mine drainage water for existing and proposed expansion and a detailed plan for utilization of mine drainage water
- 10. Copy of compliance report submitted to RO with certification, comments of RO received Proceedings of the SEAC meeting held on 18.02.2022

- 11. Explore implementation of membrane based technology for removing hexavalent chromium.
- 12. How much Quarry Water is being discharged to Damsala Nala at present and proposed projected to be discharged on expansion? Where this water is being/ will be treated and the chemical analysis before treatment and while discharging to Nala after treatment?
- 13. When it is stated to have no increase, rather decrease in pollution load due to expansion, why the capacity of Tailing Pond & ETP are proposed to be increased?
- 14. The present and proposed capacity of Tailing Pond and ETP be submitted.
- 15. What is the Technology up gradation that has helped in reduction of Pollution load and positive effect on environmental parameters despite increase in production capacity?
- 16. What specific measures taken to reduce the Hexavalent Chromium in soil and water? What is the present level and corresponding expected reduction?
- 17. Summary of the study of NIT Rourkela, their findings and specific recommendations be submitted precisely.
- 18. Since, mining has already intersected ground water table, the steps proposed for augmentation of ground water resources. The management of surface runoff during monsoon along with rainwater harvesting needs to be specified.
- 19. A site visit to be planned in 6 months' time to ensure implementation of agreed measures.

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR BRAHMAPUR SAND BED MINES ON RIVER KATHAJODI OVER AN AREA OF 5.26HA/13ACRES AT VILLAGE- BRAHMAPUR TAHASIL - CUTTACK SADAR, DISTRICT - CUTTACK OF SRI RAJENDRA PRASAD SINGH - EC

- 1. Environmental Impact Assessment (EIA) & Environmental Management Plan (EMP) of Brahmapur River Sand Bed belongs to Tahasildar, Cuttack Sadar address all the environment related issues and is prepared in accordance with the requirements of the Approved TOR issued by SEIAA vide letter no. 9644/SEIAA on dated 19.11.2020, 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. Brahmapur Sand quarry is spread over an area of 5.26 Ha. The project intend for excavation of maximum up to 7000cu.m/ annum of sand from the lease area. The project site of Brahmapur sand Quarry is located on the river bed of Kathajodi River in village Brahmapur under Cuttack sadar Tahsil of Cuttack district. The land of the mine is categorized as Nadi Kisam. The area is located in Survey of India Toposheet no. 73 H/15 and bounded by Latitude: 20°25'37.06" N to 20°25'46.04"N Longitudes: 85°54'34.81" E to 85°54'45.46"E. Nearest Town is Cuttack, nearest road is Cuttack- Baral Road (0.4 Km) and 42 Mouza Ring Road (0.5 Km), nearest railway station is Cuttack Railway station (4.5 Km) from the mine. The stratigraphy of the area is upper deltaic plain. The project intends for excavation maximum of 7000Cu.m per annum of sand from the lease area. No waste will be generated from the activity. Water requirement for the project will be 3000 liters/day which will be sourced by tanker. Total 11 nos of man power will be required. Transportation will be carried out by Haiwa/ Truck/ Tractors. Total cost of the project will be Rs.10,00,000/- approximately.

- 3. The method of excavation of sand from Brahmapur 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 63132 cu.m and 58329 Cu.m respectively.
- 4. Managerial & supervisory personnel will be only 01 in number. The lessee will employ 3 skilled, 3 semiskilled and remaining 4 unskilled workers for the excavation of sand. The mining lease area falls within the river course of Kathajodi River, below the high flood level. It therefore cannot be put to any other use. The kisam of land under the lease is Nadi. 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 0.6m 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 Brahmapur Sand Bed on River Kathajodi over ML area of 5.26 Ha. for the purpose of achieving maximum production capacity of 7000 m3 per annum at village Brahmapur, Cuttack Sadar tehsil of Cuttack district was conducted on Dtd.28/10/2021 at 11:30 A.M. at Community Hall near Sapneswar temple, Brahmapur, Cuttack SadarTahasil in Cuttack district, Odisha. The major issues raised during public hearing is traffic management to avoid agccident due to movement of heavy vehicles.
- 6. The Environment management cost allocated for the project will be Rs. 4.00 lakhs per annum and social development cost will be 9.2 lakhs as allocated in compliance to public hearing demand.
- 7. The Environment consultant M/s Kalyani Laboratories Pvt. Ltd., plot no. 78/944, Millennium city, Pahala, Bhubaneswar 752101 along with the proponent has made a presentation on the proposal before the Committee.

- 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) Regular replenishment study to be conducted and report to be submitted.
- Since HT line exists within the Lease area, mining need to be done excluding the portion strictly based on the advice of the concerned Electrical Inspector, Government of Odisha to avoid any probability of accident and for safety of human life and livestock as well.
- iv) Provision of Bio-toilet shall be made at the site.
- v) 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.
- vi) Permission to use public road including Ring road, Cuttack from the appropriate authority including its maintenance.

- vii) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.
- viii) A site visit to be planned in 6 months' time to ensure implementation of agreed measures.

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR KATHAJODI RIVER SAND QUARRY, UNIT-37, BADAMBADI SAND MINES OVER AN AREA OF 5.06 HA/ 12.50 ACRE IN VILLAGE - UNIT-37, BADAMBADI, TAHASIL - SADAR CUTTACK, DISTRICT - CUTTACK OF SRI PRAFULLA KUMAR SAHOO – EC

- 1. The Environmental Impact Assessment (EIA) & Environmental Management Plan (EMP) of Badambadi No. 37 River sand bed belongs to Tahasildar, Cuttack Sadar address all the environment related issues and is prepared in accordance with the requirements of the Approved TOR issued by SEIAA vide letter no. 9650/SEIA on dated 19.11.2020, 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. Badambadi No. 37 Sand quarry is spread over an area of 5.06 Ha. The project intend for excavation of maximum up to 45000cu.m/ annum of sand from the lease area. The project site of Badambadi sand Quarry is located on the river bed of Kathajodi River in village Badambadi No 37 under Cuttack sadar Tahsil of Cuttack district. land of the mine is categorized as Nadi Kisam. The area is located in Survey of India Toposheet no. 73 H/3 and bounded by Latitude: 20°27′01.69"N to 20°27′08.51"N Longitudes: 85°52′53.47"E to 85°53′02.56"E. Nearest Town is Cuttack, nearest road is Cuttack Ring Road (200 m) and NH-5 (1.5 Km), nearest railway station is Cuttack Railway station (2.5 Km) from the mine. The stratigraphy of the area is upper deltaic plain. The project intends for excavation maximum of 45000Cu.m per annum of sand from the lease area. No waste will be generated from the activity. Water requirement for the project will be 3000 liters/day which will be sourced by tanker. Total 60 nos of man power will be required. Transportation will be carried out by Haiwa/ Truck/ Tractors. Total cost of the project will be Rs.10,00,000/approximately.
- 3. The method of excavation of sand from Badambadi No. 37 Sand quarry will be Semi mechanised 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 455274 cu.m and 375003 Cu.m respectively.
- 4. Managerial & supervisory personnel will be only 01 in number. The lessee will employ 9 skilled, 10 semiskilled and remaining 30 unskilled workers for the excavation of sand. The mining lease area falls within the river course of Kathajodi River, below the high flood level. It therefore cannot be put to any other use. The kisam of land under the lease is Nadi. 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 3m 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 prediction of air quality due to proposed activities through simulation model shows that, taking into account of all the conceptual particulate matter generating area of river sand bed mines as the source parameter the maximum incremental Ground Level Concentration (GLC) of of PM10 will be 5.93 μg/m3 in East direction at a distance of 100 m in the lease area.
- 6. The resultant concentration of PM10 will be 60.53 μg/m3 which is well below the prescribed National standard of ambient air quality. The incremental concentration is found to be maximum in the East direction of the project site.
- 7. The Public Hearing in respect of Environment Clearance for Badambadi Sand Bed Mines of The Tahasildar, Cuttack Sadar on River Kathajodi over ML area of 5.26 Ha. for the purpose of achieving maximum production capacity of 45000 m3 per annum at village Badambadi, Cuttack Sadar tehsil of Cuttack district was conducted on Dtd.8/11/2021 at 11:30 A.M. at the entry point to the said sand sairat source under Cuttack SadarTahasil of Cuttack district, Odisha. The major issues raised during public hearing are Employment, Water sprinkling, Plantations. The Environment management cost allocated for the project will be Rs. 4.00 lakhs per annum and social development cost will be 8.40 lakhs as allocated in compliance to public hearing demand.
- 8. The Environment consultant **M/s Kalyani Laboratories Pvt. Ltd.**, **plot no. 78/944**, **Millennium city**, **Pahala**, **Bhubaneswar 752101** along with the proponent has made a presentation on the proposal before the Committee.

- 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) 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) Permission to use public road including Ring road, Cuttack from the appropriate authority including its maintenance.
- vi) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.
- vii) A site visit to be planned in 03 months' time to ensure implementation of agreed measures.

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR PRATAPNAGARI SAND BED MINES ON RIVER KUAKHAI OVER AN AREA OF 5.26 HA/ 13 ACRE IN VILLAGE PRATAPNAGARI, TAHASIL - CUTTACK SADAR, DISTRICT - CUTTACK OF SRI PRAKASH CHANDRA RAUTARAY – EC

- 1. The Environmental Impact Assessment (EIA) & Environmental Management Plan (EMP) of Pratapnagari river sand bed belongs to Tahasildar, Cuttack Sadar address all the environment related issues and is prepared in accordance with the requirements of the Approved ToR issued by SEIAA vide letter no. 9646/SEEIA on dated 19.11.2020, 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. Pratapnagari Sand quarry is spread over an area of 5.26 Ha. The project intend for excavation of maximum up to 16500 Cu.M / annum of sand from the lease area. The project site of Pratapnagari sand Quarry is located on the river bed of Kuakhai River in village Pratapnagari under Cuttack sadar Tahasil of Cuttack district. The land of the mine is categorized as Nadi Kisam. The area is located in Survey of India Toposheet no.73H/3 and bounded by Latitude: 20°23'40.87"N to 20°23'53.84"N Longitudes: 85°52'09.60"E to 85°52'19.81"E. Nearest Town is Cuttack, nearest road is Puri- Canal Road (0.5 Km), nearest railway station is Baranga Railway station (4.5 Km) from the mine. The stratigraphy of the area is upper deltaic plain. The project intends for excavation maximum of 16500Cu.m per annum of sand from the lease area. No waste will be generated from the activity. Water requirement for the project will be 3000 liters/day which will be sourced by tanker. Total 30 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 Pratapnagari Sand quarry will be semi mechanized open cast mining. The mode of the deposits, geomorphology of the area and its hydrological condition are some of the factors that favor the open cast method of mining. The geological and mineable reserve of the lease area is 189396 cu.m and 137520 Cu.m respectively.
- 4. Managerial & supervisory personnel will be only 01 in number. The lessee will employ 5 skilled, 8 semiskilled and remaining 16 unskilled workers for the excavation of sand. The mining lease area falls within the river course of Kuakhai River, below the high flood level. It therefore cannot be put to any other use. The kisam of land under the lease is Nadi. 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 3m 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 lease area is devoid of any forest land. The nearest eco sensitive zone is Nandankanan Zoological Park which is located at a distance of 10 Km from the lease area.
- 6. The prediction of air quality due to proposed activities through simulation model shows that, taking into account of all the conceptual particulate matter generating area of river sand bed mines as the source parameter the maximum incremental Ground Level Concentration (GLC) of PM10 will be 3.86 μg/m3 in NE direction at a distance of 200 m in the lease area.

- 7. The resultant concentration of PM10 will be 60.76 µg/m3 which is well below the prescribed National standard of ambient air quality. The incremental concentration is found to be maximum in the South East direction of the project site.
- 8. The Public Hearing in respect of Environment Clearance for Pratapnagari Sand Bed Mines by Tahasildar, Cuttack Sadar on River Kuakhai over ML area of 5.26 Ha. for the purpose of achieving maximum production capacity of 16500 m3 per annum at village Pratapnagari, Cuttack Sadar tehsil of Cuttack district was conducted on Dtd.10/11/2021 at 11:30 A.M. at Dhakulei Nodal Bidyapitha, Pratapnagari, Cuttack Sadar Tahasil in Cuttack district, Odisha.
- 9. The major issues raised during public hearing are dust pollution, water sprinkling arrangements, tarpaulin cover on sand loaded vehicles, plantations, increase of traffic movement, damage of road, humps on road, employment.
- 10. The Environment management cost allocated for the project will be Rs. 4.00 lakhs per annum and social development cost will be 8.40 lakhs as allocated in compliance to public hearing demand.
- 11. The Environment consultant **M/s Kalyani Laboratories Pvt. Ltd.**, **plot no. 78/944, Millennium city, Pahala, Bhubaneswar 752101** along with the proponent has made a presentation on the proposal before the Committee.

- 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) 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) Permission to use public road including Ring road, Cuttack from the appropriate authority including its maintenance.
- vi) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.
- vii) A site visit to be planned in 03 months' time to ensure implementation of agreed measures

ITEM NO. 06

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR UTTAMAPUR SAND BED MINES ON RIVER KUAKHAI OVER AN AREA OF 5.67 HA/ 14 ACRE IN VILLAGE UTTAMPUR, TAHASIL - CUTTACK SADAR, DISTRICT - CUTTACK OF SRI CHINMAYEE MUDULI – EC

1. The Environmental Impact Assessment (EIA) & Environmental Management Plan (EMP) of Uttampur river sand bedbelongs to Tahasildar, Cuttack Sadar address all the environment related issues and is prepared in accordance with the requirements of the Approved TOR

- issued by SEIAA vide letter no. 9656/SEIA on dated 19.11.2020, 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. Uttampur Sand quarry is spread over an area of 5.67 Ha. The project intend for excavation of maximum up to 20000cu.m/ annum of sand from the lease area. The project site of Uttampur sand Quarry is located on the river bed of Kuakhai River in village Uttampur under Cuttack sadar Tahsil of Cuttack district. The land of the mine is categorized as Nadi Kisam. The area is located in Survey of India Toposheet no. 73H/15 and bounded by Latitude:20°25'31.99"N to 20°25'42.35"N Longitudes: 85°51'53.68"E to 85°52'03.42"E. Nearest Town is Cuttack, nearest road is Balikuda Road (1.5 Km), nearest railway station is Gopalpur-Balikuda Railway station (1.5 Km) from the mine. There is no national park, sanctuary and other eco sensitive zone located within 10 Km radius of the project site.
- 3. The stratigraphy of the area is upper deltaic plain. The project intends for excavation maximum of 20000Cu.m per annum of sand from the lease area. No waste will be generated from the activity. Water requirement for the project will be 3000 liters/day which will be sourced by tanker. Total 20 nos of man power will be required. Transportation will be carried out by Haiwa/ Truck/ Tractors. Total cost of the project will be Rs.10,00,000/approximately.
- 4. The method of excavation of sand from Uttampur Sand quarry will be semimechanized 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 226628 cu.m and 166672 Cu.m respectively.
- 5. Managerial & supervisory personnel will be only 01 in number. The lessee will employ 4 skilled, 5 semiskilled and remaining 10 unskilled workers for the excavation of sand. The mining lease area falls within the river course of Kuakhai River, below the high flood level. It therefore cannot be put to any other use. The kisam of land under the lease is Nadi. 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 2m only. Post mining also the area will remain part of active river course.
- 6. The resultant concentration of PM10 will be 65.35μg/m3 which is well below the prescribed National standard of ambient air quality. The incremental concentration is found to be maximum in the South East direction of the project site.
- 7. The Public Hearing in respect of Environment Clearance for Uttampur Sand Bed Mines of the Tahasildar, Cuttack Sadar on River Kuakhai over ML area of 5.67 Ha. for the purpose of achieving maximum production capacity of 20000 m3 per annum at village Uttampur, under Cuttack Sadar tehsil of Cuttack district was conducted on Dtd.under 3/11/2021 at 11:30 A.M. at Acharya Harihar Government High School, Uttampur, Cuttack SadarTahasil in Cuttack district, Odisha. The major issues raised during public hearing is plantation, employment.

- 8. The Environment management cost allocated for the project will be Rs. 4.00 lakhs per annum and social development cost will be 8.60 lakhs as allocated in compliance to public hearing demand.
- 9. The Environment consultant **M/s Kalyani Laboratories Pvt. Ltd.**, **plot no. 78/944, Millennium city, Pahala, Bhubaneswar 752101** along with the proponent has made a presentation on the proposal before the Committee.

- 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) 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) Permission to use public road including Ring road, Cuttack from the appropriate authority including its maintenance.
- vi) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.
- vii) A site visit to be planned in 03 months' time to ensure implementation of agreed measures.

ITEM NO. 07

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR SILPAPURI SAND BED MINES ON RIVER KATHAJODI OVER AN AREA OF 5.06 HA/ 12.50 ACRE IN VILLAGE UNIT-39, SILPAPURI, TAHASIL - CUTTACK SADAR, DISTRICT - CUTTACK OF SRI CHINMAYEE MUDULI - EC

- 1. The Environmental Impact Assessment (EIA) & Environmental Management Plan (EMP) of Silpapuri unit 39 Sand mines belongs to Tahasildar, Cuttack Sadar address all the environment related issues and is prepared in accordance with the requirements of the Approved TOR issued by SEAC vide letter no. 8394/SEIAA, dated 03.06.2020, 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. Shilpapuri sand quarry is spread over an area of 5.06 Ha. The project intend for excavation of maximum up to 45000 cu.m/ annum of sand from the lease area. The project site of Shilpapuri Sand is located on the river bed of Kathajodi in village Silpapuri(Unit-39) under Cuttack Sadar Tahasil of Cuttack district. The land of the mine is categorized as Nadi Kisam. The area is located in Survey of India Toposheet no. F45T15 and bounded by

latitudes 20°26'03.01"N to 20°26'13.0"N and longitudes of 85°53'55.5"E to 85°54'04.05"E. Nearest Town is Silpapuri (2 Km), nearest road is Cuttack- Baral Road (600 m) and NH-5 (1.5 Km), nearest railway station is Cuttack Railway station (3.5 Km) from the mine. The stratigraphy of the area is upper deltaic plain. There is no national park/ sanctuary/ Biosphere reserve present within the 10 Km buffer zone of the project site.

- 3. The project intends for excavation maximum of 45000Cu.m per annum of sand from the lease area. No waste will be generated from the activity. Water requirement for the project will be 3000 liters/day which will be sourced from nearest village tube well. Total 45 nos of man power will be required. Transportation will be carried out by Truck/ Tractors/Haiwas. Total cost of the project will be Rs.10,00,000/- approximately.
- 4. The method of excavation of sand from Silpapuri Sand quarry will be Semi mechanized 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 394570 cu.m and 374993 Cu.m respectively.
- 5. Managerial & supervisory personnel will be only 01 in number. The lessee will employ 14 skilled, 14 semiskilled and remaining 20 unskilled workers for the excavation of sand. The mining lease area falls within the river course of Kathajorhi River, below the high flood level. It therefore cannot be put to any other use. The kisam of land under the lease is Nadi. 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 3m 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.
- 6. The lease area is devoid of any forest land. The nearest eco sensitive zone Nandankanan Eco sensitive zone which is located at a distance of 8.5 Km from the proposed project area. Chandaka wild life sanctuary is located at a distance of 15 Km from the lease area. Nearest reserve forest is Churanga Reserve Forest located at a distance of 9Km.
- 7. The prediction of air quality due to proposed activities through simulation model shows that, taking into account of all the conceptual particulate matter generating area of river sand bed mines as the source parameter the maximum incremental Ground Level Concentration (GLC) of of PM10 will be 6.41 μg/m3 in East direction at a distance of 100 m in the lease area.
- 8. The resultant concentration of PM10 will be 63.01 μg/m3 which is well below the prescribed National standard of ambient air quality. The incremental concentration is found to be maximum in the East direction of the project site.
- 9. The Public Hearing in respect of Environment Clearance for Silpapuri Sand Bed Mines of the Tahasildar, Cuttack Sadar on River Kathajodi over ML area of 5.06 Ha. for the purpose of achieving maximum production capacity of 45000 m3 per annum at village Silpapuri, under Cuttack Sadar tehsil of Cuttack district was conducted on Dtd.under 30/10/2021 at 11:30 A.M. at Community Centre, Odisha Government Press Colony, Nuapada, Cuttack Sadar Tahasil in Cuttack district, Odisha. The major issues raised during public hearing is plantations.

- 10. The Environment management cost allocated for the project will be Rs. 4.00 lakhs per annum and social development cost will be 8.60 lakhs as allocated in compliance to public hearing demand.
- 11. The Environment consultant M/s Kalyani Laboratories Pvt. Ltd., plot no. 78/944, millennium city, Pahala, Bhubaneswar 752101 along with the proponent has made a presentation on the proposal before the Committee.

- 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) 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) Permission to use public road including Ring road, Cuttack from the appropriate authority including its maintenance.
- vi) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.
- vii) A site visit to be planned in 03 months' time to ensure implementation of agreed measures.

Approved

Chairman, SEAC

Secretary SEAC

STANDARD ENVIRONMENTGAL 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 1stday 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

SI. No.	Essential Criteria	Reference
1.	"No Mining Zone": 1/4the part of the river width (excluding 3/4the 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 kmb) Area of mining lease area is 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 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 : ≤60% of mine lease area	4.3 (Para - s) Page - 25
8.	Minable sand per ha. Available for actual mining : ≤60,000 MT/Annum	
9.	Regular replenishment study and replenishment rate	