as per the Hon'ble Supreme Court order vide its order dated 10.11.2021 in Civil Appeal Nos. 3661-3662 of 2020 (State of Bihar Vrs. Pawan Kumar and Others).

- The PP will implement the EMP with a budgetary allocation of Rs. 6.00Lakh (Capital Cost) and Rs. 4.00 Lakh (Recurring Cost) as proposed during the valid lease period of 5 years along with 4.00 Lakh for CER cost will be expend for peripheral development as commitment in the Public Hearing.

APPROVED BY

Member Secretary, SEIAA **Member, SEIAA** **Chairman, SEIAA**

AGENDA NO.131.06	
Proposal No.	SIA/OR/MIN/429196/2023
Date of application	12.06.2023
File No.	429196/815-MINB1/06-2023
Project Type	ToR
Category	B1
Project/Activity including Schedule No.	1(a)- Mining of Minerals
Name of the Project	Proposal for ToR for Khanjamahal Stone Quarry (Cluster Approach) over an area of 244.50 Ac./98.94 Ha. (Khata No-144, Plot No-161, 165, 164, 318, 168, 167, 166, 266, 287, 264, 265, 263) in village- Khanjamahal, Tahasil-Soro, District-Balasore.
Name of the company/Organization	Applicant: Tahasildar Soro
Location of Project	village- Khanjamahal, Tahasil-Soro, District-Balasore.

Proposal in brief:

The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.

(i) This proposal is for Terms of Reference for obtaining Environmental Clearance for Khanjamahal Stone Quarry (Cluster Approach) over an area of 244.50 Ac./98.94 Ha. (Khata No-144, Plot No-161, 165, 164, 318, 168, 167, 166, 266, 287, 264, 265, 263) in village Khanjamahal, under Soro Tahasil in Balasore district of Tahasildar Soro.

(ii) There are 61 numbers of quarries leases existing within 500m periphery of each other thus forming a cluster and does not come under DLC certified by Tahasildar vide letter no 2390 dated 09/05/2023.

(iii) The Cluster lease area has been proposed by Tahasildar, Soro vide Letter No- 175 dated: 15.01.21

(iv) The Cluster of Khanjamahal consists of 61 numbers of individual stone quarries. The individual stone quarries will be auctioned by the Tahasildar, Soro and allocated to the successful bidder for mining activity on a long-term basis i.e., 5 years from the date of execution of lease deed.

(v) The Cluster Mining plan has been approved by The Deputy Director Geology & Authorized Officer, The Directorate of Geology, Bhubaneswar, Odisha vide Letter No. GXVII(g) - 86/216334/DG, Dt. 30.10.2021.

(vi) Location and connectivity: The lease area under reference featured in the Survey of India Topo sheet no. F45O/11 is on Khata No-144, Plot No-161, 165, 164, 318, 168, 167, 166, 266, 287, 264, 265, and 263. The geo coordinates of the lease area is 21°20'39.53"N to 21°21'32.76"N and longitude 86°39'38.52"E to 86°40'41.07"E. The area is located 40 km from District Headquarters Balasore and 140 Km from State Capital Bhubaneswar. Nearest railway stations is Soro at a distance of 6.54 Km. Nearest Airport is Bhubaneswar Airport which is at a distance of 149.36 Km. The nearest habitation is Mahumuhan at a distance of 0.5 Km (W), the main connectivity of the lease area for transportation is Mangalpurpur Bagudi PWD Road which is at a distance of 0.7 Km, which is further connected to NH-16 at Soro at a distance of 6.14 KM. Nearest reserve forest is Kuldiha reserve forest which is 1.03 Kms away from the proposed site.

(vii) Reserves and total production: Estimated geological reserve for all the 61 mines (cluster) is 39.608 Million Cum and Mineable Reserve is 20.881 Million Cum. The total production will be 12.247 Million Cum during the plan period. Annual Production capacity for 61 mines will be 2.484 Million cum/Annum.

Year	Volume (Million m^3)
1ST YEAR	2.484

2ND YEAR	2.484
3RD YEAR	2.484
4TH YEAR	2.484
5TH YEAR	2.484
TOTAL	**12.427**

(viii) Mining method: Mining operations will be carried out by Semi-mechanized opencast mining method. Conventional method of mining will be adopted in lease area. In the present plan period, it is proposed to shape the quarry with bench height and width of 6m and 6m respectively. The slope of individual bench will be maintained around 80° to 85° with ultimate pit slope of less than 45°. Quarrying activities will be done following all the security majors. Rules and regulations of DGMS and IBM will be observed during the Quarrying operations to avoid unwanted circumstances. Deep & short hole blasting will be carried out with the help of Slurry as explosive and shock tube as accessories for loosening the hard rock. A total of 2972102 m3 of waste will be generated during this plan period. Mined out material will be loaded into the dumpers with the help of JCB and will be send to the nearby established crusher outside the lease area and finally the material of commercial use as per the demand of the market will be transported by Covered trucks / dumpers to its destination.

(ix) Water requirement: Water requirement for the Khanjamahal cluster project is 164 KLD for mining, spraying, greenbelt development and domestic uses and will be sourced from the nearby available water source/accumulated rainwater in mined out pits.

S. No	Description	Water Requirement (KLD)
1	Drinking & Domestic purpose	31.2
2	Dust suppression	82.0
3	Green Belt	50.8
Total		**164.0**

(x) Waste generation and management: Total waste generation will be 2.972 Million cum during the plan period. The waste generated from Khanjamahal Stone Quarry (cluster) will be dumped temporarily at the designated place as per the approved Mining Plan and subsequently utilized for road construction and maintenance during the plan period.

(xi) Transportation: The open cast semi mechanized method and 10-to-20-ton capacity Tippers and Hyva will be engaged for transportation of minerals.

(xii) Power requirement: The power required for the office is minimal, shall be taken from the General Electric supply of the area. However, if required for lighting in the project area at night power will be sourced from State Grid.

(xiii) Greenbelt: About 13113 saplings of local species will be planted under the green belt (safety zone) and non-mineralized area for five years. The plantation proposed in the buffer area and avenue plantation will be carried out in open places in and around the quarry lease area. The budget for afforestation will be around Rs. 19,66,950/-.

Year	No.of samplings	Species
1st	2625	Mango, Subabul, Chakunda with local species
2nd	2622	
3rd	2622	
4th	2622	
5th	2622	

Total	**13113**	

(xiv) Manpower: Total manpower requirement will be 1348 no's for the proposed project.

(xv) Project cost: The capital cost of Khanjamahal cluster project is 610 Lakhs (6.10 Crore). EMP capital cost of the project is 91.50 Lakhs and EMP Recurring cost is 69.22 Lakhs.

S. No.	Environmental Work	Capital cost in rupees	Recurring cost in rupees	
1	Water sprinkling for dust suppression	Rs.8,00,000/-	Two times water sprinkling per day costs 4000/- including manpower cost and water, tanker cost.	Per year Rs. 12,00,000/-
2	Greenbelt	Rs.19,66,950/-	Daily watering, monitoring and periodic manure, other fertilizer spending's (Cost per month for13113 plants: Rs.1,50,000/-) 10 months in a year =1,50,000x10	Per year Rs. 15,00,000/-
3	Retaining wall, Garland Drain	Rs.15,00,000/-	Regular monitoring and periodic changes, per year 2 times Rs.3,00,000/- each time.	Per year Rs. 6,00,000/-
4	Septic tank and related	Rs. 5,00,000/-	Yearly once cleaning @ Rs. 1,00,000/-	Per year about Rs. 1,00,000/-
5	Environmental monitoring	Rs. 18,61,050/-	Monthly Rs. 1,00,000/-	Per year about Rs. 10,00,000/-
6	First aid Facility	Rs.5,00,000/-	Per month about Rs.50,000/- (medicines, checkups as per need)	Per year Rs. 5,00,000/-
7	PPE kit	Rs 20,22,000/-	One time per year Rs. 1,500 Per head 1348x1,500 = 20,22,000/-	Per yearRs.20,22,000/-
Total in Rupees		**91,50,000/-**	**69,22,000/-**	

(xvi) The Environment consultant M/s EHS 360 Labs Private Limited, Chennai along with the proponent made a presentation on the proposal before the Committee on 07.07.2023.

(xvii) Whether the DSR has been prepared as per the MoEF& CC, Govt. of India Notification S.O. 3611(E) dated 25.07.2018, Sustainable sand mining guidelines-2016 and Enforcement & Monitoring Guideline for sand mining-2020 and as per the Hon'ble Supreme Court order vide its order dated 10.11.2021 in Civil Appeal Nos. 3661-3662 of 2020 (State of Bihar Vrs. Pawan Kumar and Others)- Yes

(xviii) Any deficiencies/omission have been noticed in the above documents-PFR to be reviewed.

2.Whether SEAC recommended the proposal –Yes. The SEAC in its meeting held on 07.07.2023 have prescribed the following specific ToRs in addition to standard ToRs in cluster approach for conducting detailed EIA study:

i. Installation of STP of adequate capacity and requisite design.

ii. ToRs has been proposed for 1-15 quarries, which is not acceptable. The EIA study shall be carried out and the EMP will be prepared in cluster approach for 61 quarries which will be submitted during submission of Final Environmental Impact Assessment Report at SEIAA. The EIA report should include existing (i.e. EC obtained) and proposed stone quarries in cluster.
iii. Copies of Previous obtained EC which SEIAA has granted as informed by the proponent.
iv. Traffic study duly vetted by reputed institution.
v. Green belt in safety zone of each mine and all-round the clusters to be confirmed with details.
vi. Arrangement of pipeline sprinkling (permanent water line) to be explored and confirmed.
vii. Silt management and SoP for the same to arrest /remedy of silt ingress to surrounding agricultural lands.
viii. Kisam of land to be submitted.
ix. Safety measures during blasting including provision of warning to be submitted.
x. Distance of boundary of Kuldiha Wildlife Sanctuary and boundary of its Eco-Sensitive Zone (ESZ) to be Certified by concerned, DFO. Also certificate from DFO that the said cluster is not coming within Eco-Sensitive Zone of Kuldiha wildlife Sanctuary.
xi. Map showing ESZ, Sanctuary boundary and lease boundary.
xii. Distance of nearest elephant corridor from cluster.
xiii. Site photographs along with the consultant.
xiv. Access road for transportation of mined products from each of the 61 stone quarries, space for storing mined wasted products as well as mined mineral products along with drainage system of rainwater (surface run off) for each 61 quarries to be shown in a common layout map certified by the RQP as per the approved mining plan.
xv. RL of water table in the mineral stone quarry zone comprising of all 61 quarries during summer and rainy season to be provided along with the RL of the surface post mining as per the approved mining plan of each of 61 leases in the cluster.
xvi. Individual mining plan for each quarry/mine in the cluster as the proponent has submitted cluster mining plan.
xvii. Nos of proposed blasting per day as per the approved mining plan for all 61 leases under the cluster approach to be presented.
viii. Latest KML file demarcating each quarry of the cluster. Geo-coordinates of the mining lease area boundary of each of 61 leases under the cluster approach superimposed on the cadastral map to be furnished.
xix. Standard Operating Procedures (SOP) for Blasting of all the quarries along with blasting management.
xx. Dust Management.
xxi. Layout of the entire area of 244.50 Ac./98.94 Ha. of Khanjamahal Stone Quarry (Cluster Approach) indicating the location of all 61 mining leases to be considered under the cluster approach along with location of waste dump, product storage area, route of transportation of the mined mineral products to the market, system of rainwater drainage (Garland drain) etc. of each of the above-mentioned leases along with the location of the proposed STP as per the approved mining plan.
xxii. Details of any court case if any pending for the cluster or any of 61 leases under it.

Decision of Authority: ADS

The Authority observed that there are 61 quarries in cluster whereas the present application for ToR is proposed for 15 quarries. There is no provision for issue of ToR in Part for a cluster. Further, there are discrepancy in between the approved DSR and PFR in the present ToR application. The DSR also shows the ESZ of Kuldhia WL Sanctuary to be approx. distance of 510 meters which needs to be clarified.

After detailed deliberation in the matter, the Authority decided that the PP is required to apply for issue of ToR for the entire cluster (61nos. quarries) as per approved DSR and shall submit DLC report certified from DFO, Balasore for the 61 no. of quarries along with the ToR application.

APPROVED BY

16/8/23

Member Secretary, SEIAA

Member, SEIAA

16.08.2023

Chairman, SEIAA

AGENDA NO.131.07	
Proposal No.	SIA/OR/MIN/423756/2023
Date of application	29.03.2023
File No.	423756/808-MINB1/03-2023
Project Type	EC
Category	B1
Project/Activity including Schedule No.	1(a) Mining of minerals
Name of the Project	Proposal for grant of EC for Jahada Sand Quarry over an area of 18.788 acres/7.603 ha. at Village -Jahada , Tahasil-Dharakote, District- Ganjam
Name of the company/Organization	Applicant: Sri Kesharao Dora
Location of Project	Village-Jahada, Tahasil-Dharakote, District-Ganjam
ToR Date	19.08.2022

1. Proposal in brief:

The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.

(i) This proposal is for Environmental Clearance of Jahada Sand Quarry over an area of 18.788 acres/7.603 ha. At Village Jahada of Tahasil-Dharakote in District Ganjam of Sri Kesharao Dora.

(ii) The mining lease granted by Tahasildar, Dharakote, Ganjam has been auctioned and leased out to the successful bidder Sri Keshrao Dora, S/o-Duryodhan Dora, At/ P.O- Janibilli, P.S.-Dharakote, Dist – Ganjam after obtaining statutory clearances vide letter no 1299 dated 19.04.2022.The mining lease will be granted on for long term basis for 5 years and the lease period will start from the date of registration of executed lease deed.

(iii) The Mining plan has been approved by the Deputy Director of Geology (Authorized Officer), O/o The Joint Director of Geology (S.Z), Berhampur vide memo no-592/SZ on dated 02.05.2022.

(iv) The mining lease area is listed as an identified sand minor mineral in Page – 93, Serial no 5, in DSR of the Ganjam district.

(v) TOR details: Terms of Reference (ToRs) Letter for the Jahada Sand Bed has been obtained in favour of Tahasildar, Dharakote vide letter no – 5193/SEIAA on dated 19.08.2022.

(vi) Public hearing details: The public hearing in respect of the above project was held on 05.01.2023 as per schedule and the venue in accordance with the EIA notification S.O.1533 (E) dt.14.09.2006. Issues raised during public hearing are Air Pollution Control (water sprinkling, plantation in nearby school and roads), employment to locals, health care (health camp, blood donation camp etc in nearby village namely Jahada), drinking water (installation of RO plant to nearby village) and maintenance of roads. Total budget incurred for action plan of public hearing issues is Rs. 3,50,000.

(vii) Location and connectivity: The Jahada Sand quarry is on Khata no- 861, Plot no – 5680 & 5681 of Kissam Nadi at village Jahada in Dharakote Tahasil in Ganjam District of Odisha. The area under discussion is featured in Survey of India Topo Sheet No – E45A10 and is bounded between the Latitude -19° 40' 41.98" N to 19° 40' 51.90" N and Longitude – 84° 33' 37.19" E to 84° 33' 53.23" E. The lease area is located at a distance of 0.7km from village Jahada and at a distance of 4.5 kms from Dharakote, 56 kms from the District Headquarters Ganjam and 150 kms from the State Capital Bhubaneswar. Berhampur railway station is the nearest railway station located at a distance of 49 kms from the lease area. Nearest Road Bridge-Nandighora is at a distance of 2.7km from the mining lease area. Metal road connecting to the lease area and is at distance of

0.28 km. SH – 36 is at 11.5 km and it is the nearest major district road. NH- 59 is the nearest National Highway which is at a distance of 0.61km.

(viii) There is no National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/ Elephant Reserves (existing) is situated within 10km of the mining lease area.

(ix) Replenishment study: The volume of sand available after post monsoon is around 27760.2 m^3 , which can be treated as safe extractable within the framework of the study after arrival of river level as it was in pre monsoon. Further volume of sand also computed, which can be extracted as on date (during mining plan preparation) is 35590m^3. As it is a new mine no excavation has done in this year. So, total minable reserve available for mining is 35590 + 27760.2 = 63350.2 m^3 whereas, approved production capacity for the year is 11,000 m^3.

(x) Total production and reserves: The average production is proposed to be 11000cum/year and 55000 cum is the total production during the plan period. As estimated, geological and mineable reserve of the proposed project is 46452cum and 35590cum respectively. Extractable mineable reserve is 21354 cum.

(xi) Mining method: The mining is done by manual mining method using spade axe and hand picks. Transportation will be done by Tippers/Tractors. No benching will be necessary. One quarry with a depth of 1.0 m will be developed. The development for the ensuring five years period has been proposed in the river sand within the lease area. The floor level at the end of the five-year plan period of the concession will be 55 m RL.

(xii) Water requirement: Water requirement for the project will be 3.0 KLD. Water required in the project will be for drinking purpose and dust suppression, which will be sourced from water tanker.

(xiii) Power Requirement: Power will not be required for operations as the mining will be worked out during day time only. Minimal power required for office shall be taken from the General Electric supply of the area.

(xiv) Greenbelt: Plantation will be done on the bank of the river. 250 plants are to be planted on the river bank to protect the river bank side from erosion & protection of the environment. Sapling of trees like Banyan, Peepal, Mahaneem, Arjun Kadamba, Mango, Jackfruit, Jamun, Kendu, Nim etc to be planted.

(xv) Manpower requirement: Employment Generation from the project is 23 nos. of people. Indirect employment through creation of shops/ stalls, hired vehicles, etc. also, can be generated to full fill the day-to-day requirements of the mining personals.

(xvi) Baseline summary: Baseline study has been collected for Pre monsoon season, March 2022 to May 2022.

a) Soil Status: It has been observed that the pH of the soil in the study area ranged from 7.43 to 8.06. The electrical conductivity was observed to be in the range of 340.33 µmhos/cm to 380.1 µmhos/ cm. The total nitrogen values range between 104.2 to 175.8 mg/kg. The phosphorus values range between 41.4 to 54.95 mg/kg, indicating that the phosphorus content in the study area falls in less to medium category. The potassium values range between 182.5 – 222.7 mg/kg.

b) Surface Water: The analysis results indicate that pH and total coliform of the Surface water was found to be in range of 7.5 – 8.2 and 232 - 340 MPN/100ml.

c) Ground Water: The analysis results of ground water samples showed the pH in range of 6.84-7.82 which are with the specified standard limits of 6.5 to 8.5. Color and turbidity of the samples < 5.0 Hazens and <1.0 NTU respectively. The total hardness of the samples ranged from 240.2 mg/l – 292.3 mg/l. Calcium and magnesium concentrations ranged from 53.35 mg/l -68.9 mg/l and 30.40 mg/l –45.39 mg/l respectively. The total dissolved solids of the samples ranged from 550.9 mg/l – 724.3 mg/l. The TDS values are within the stipulated 2000 mg/l. Range of chlorides and sulphates concentrations ranges from 106.9 mg/l- 147.8 mg/l and 38.4 mg/l – 51.8 mg/l respectively. Fluoride concentration ranged from 0.28 mg/l – 0.42mg/l and is found to be within the permissible limits. Iron concentrations in ground water varied from 1.06-1.28 mg/l. Zinc

levels varied from 0.53-0.80 mg/l respectively. Aluminium concentration in ground water is <0.02 mg/l at all locations.

d) Air quality: The maximum value for PM10 observed at Project Site location 71.4 µg/m3 and minimum value for PM10 observed at Kharigurha Village 45.1 µg/m3. The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 100 µg/m3. The maximum value for PM2.5 observed at Project Site location 45 µg/m3 and minimum value for PM2.5 observed at Kharigurha Village 26.5 µg/m3. The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 60 µg/m3. The maximum value for SO2 observed at Project Site location 11.5 µg/m3 and minimum value for SO2 observed at Haripur Village 5.1 µg/m3. The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 80 µg/m3. The maximum value for NO2 observed at Project Site location 20.0 µg/m3 and minimum value for NO2 observed at Haripur Village 7.4 µg/m3. The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 80 µg/m3. The maximum value for CO observed at Project Site location 1.27 mg/m3 and minimum value for CO observed at Haripur Village 0.32 mg/m3. The 24 hours applicable limit for industrial, Residential Rural and Other Areas is 4 mg/m3.

e) Noise study: The daytime (Leq day) noise levels are observed to be in the range of 44.7 –54.8 dB(A) which are within the prescribed limit of 55 dB(A). The maximum noise level of 54.8 dB (A) was observed at Kapilash mine site and the minimum noise level of 44.7 dB(A) was observed at Village Sasapur during the study period. It is observed that the day time noise levels are in accordance to the prescribed limit of 55 dB (A). The nighttime (Leq night) Noise levels are observed to be in the range of 33.2 – 44.6 dB(A) Which are within the prescribed limit of 45 dB(A). The maximum noise level of 44.6 dB (A) was observed at Kapilash mine site and the minimum noise level of 33.2 dB (A) at Village Haripur during the study period. It has been found that the night time noise levels are in accordance to the prescribed limit of 45 dB (A).

(xvii) Project cost: Estimated project cost of the proposed project is 50.0 Lakhs. EMP cost budget includes capital cost Rs. 4,70,000/-of and recurring cost of Rs. 2,35,000.

S. No.	Description	Capital Cost (Rs.)	Recurring Cost (Rs.)
a)	Air pollution Control: Dust Suppression/ Water Sprinkling	30,000	1,00,000
b)	Road Maintenance	50,000	60,000
c)	Greenbelt	40,000	25,000
d)	Personal Protective Equipment	-	20,000
e)	Environmental monitoring	-	30,000
f)	Addressal of Public Hearing issues	3,50,000	-
	Total	4,70,000/-	2,35,000

(xviii) The Environment consultant M/s Parivesh Environmental Engineering Services, Lucknow, along with the proponent made a presentation on the proposal before the Committee on dtd. 03.05.2023.

(xix) The PP submitted Ads to SEAC on 26.06.2023.

(xx) Whether the DSR has been prepared as per the MoEF& CC, Govt. of India Notification S.O. 3611(E) dated 25.07.2018, Sustainable sand mining guidelines-2016 and Enforcement & Monitoring Guideline for sand mining-2020- No

(xxi) Any deficiencies/omission have been noticed in the above documents-

2. Whether SEAC recommended the proposal – Yes. The proposal was placed in the SEAC meeting held on 12.07.2023 and the SEAC have **recommended for grant of Environmental Clearance** for the proposal valid upto lease period with stipulated conditions as applicable for sand quarry and following specific conditions:-

(i) Amended EIA Notification dated 25th July, 2018, Guidelines for sustainable sand mining, 2016 and Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India shall be adhered to in execution of Mining.

(ii) Sand extraction shall be limited to quantity and depth as per replenishment study report. Regular replenishment study as per guidelines 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.

Decision Of Authority: Approved

After detailed deliberation in the matter, the Authority decided to grant EC with usual stipulated conditions as applicable for sand quarry:

- Maximum depth of mining 1.0 meter and maximum quantity of extraction shall be limited to **11000 cum** in 1st year and **11000 cum** in 2nd year on adhoc basis. PP shall submit Annual rate of replenishment study (ARRS) report through ORSAC empanel agency by **December 2025.**
- The validity of EC is for 1st year and 2nd year or validity of DSR or validity of lease period whichever is earlier.
- The Grant of EC for further period will be considered after submission of approved DSR by SEIAA as per the MoEF& CC, Govt. of India Notification S.O. 3611(E) dated 25.07.2018, Sustainable sand mining guidelines-2016 and Enforcement & Monitoring Guideline for sand mining-2020 and also as per the Hon'ble Supreme Court order vide its order dated 10.11.2021 in Civil Appeal Nos. 3661-3662 of 2020 (State of Bihar Vrs. Pawan Kumar and Others).
- The Project proponent shall follow Enforcement & Monitoring Guideline for sand mining-2020 before and during operation of quarry.
- The Project Proponent (lease holder) shall deposit Rs.3,75,000/-, with the respective District Environment Society for raising 750 plants (minimum @100 trees per Ha) of native species within 2 years in a suitable location adjoining to quarry.
- The PP will implement the EMP with a budgetary allocation of Rs. 4.70 Lakh as capital cost & Rs.2.35Lakhs/annum as recurring cost as proposed during the valid lease period of 5 years.
- The PP shall comply to the issues raised during public hearing. The PP will spend Rs. 3.50 Lakhs/annum as proposed towards addressing public hearing issues.

APPROVED BY

Member Secretary, SEIAA **Member, SEIAA** **Chairman, SEIAA**

AGENDA NO.131.08	
Proposal No.	SIA/OR/INFRA2/418519/2023
Date of application	13.03.2023
File No.	418519/13-INFRA2/03-2023
Project Type	EC
Category	B1
Project/Activity including Schedule No.	7(d)(a)-Common Bio-Medical Waste Treatment Facility
Name of the Project	Proposal for grant of EC for Setting Up of Common Bio-medical Waste Treatment & disposal facility at Khata No-81/17, Plot No-15, at Mouza-Balibad, Tahasil- Soro, District-Balasore, Odisha including Incinerator, Autoclave, Shredder and Effluent treatment unit.
Name of the company/Organization	Applicant: M/s Utkal Envirocare; Sri. Ganesh Prasad Swain,Director
Location of Project	at Mouza-Balibad, Tahasil- Soro, District-Balasore
ToR Date	02.03.2022

Proposal in brief:

The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.

(i) This proposal is for Environmental Clearance of M/s Utkal Envirocare for Common Bio-medical Waste Treatment & disposal facility over an area 1.5 Acre (0.60 Ha) located at Khata No-81/17, Plot No-15, Mouza-Balibad, Tehsil- Soro, District- Balasore filed by Sri Ganesh Prasad Swain. Director.

(ii) Project details: M/s Utkal Envirocare has proposed for development of Common Bio- Medical Waste Treatment Facility at Khata No-81/17, Plot No-15, Mouza- Balibad, Tehsil- Soro, District-Balasore, Odisha for handling & disposal of Bio medical waste generated within a radius of 150 Km. The proposed CBWTF unit consist of Incinerator, Autoclave, Shredder and Effluent treatment unit. The Incinerator with proper Air Pollution Control Device (APCD) with a capacity of 200 Kg/hr or 3.2 TPD, 2 Nos of Autoclave with a capacity of 125 Kg/hr or 2 TPD, Shredder with a capacity of 125kg/hr or 2 TPD and ETP – 15KLD. The objective for the proposed project is to establish an Integrated Common Bio-medical Waste Treatment facility to handle 300 kg/hr or say 5.2 TPD of Bio-medical waste.

(iii) ToR details: Terms of Reference (ToRs) was issued by SEIAA, Odisha vide letter no. 4129/SEIAA dtd. 02.03.2022.

(iv) Location and Connectivity: The Project is proposed to be located at Khata No-81/17, Plot No-15, Mouza-Balibad, Tehsil- Soro, District-Balasore, Odisha. The project site is bounded by geo-coordinates Latitude 21°18'51.04"N and Longitude 86°40'54.72"E bearing Toposheet No F45O11.The nearest Highway is NH-16 is at 2.2 Km towards SE of the Project Site which is connected to the site via approach road of 0.2 Km known as Bagudi road. The nearest railway station is Soro railway station at 2.6 km towards SSE from the project site. Nearest airport is Biju Patnaik International Airport at 148 km, SW from the project site. Nearest river is Pitakalia at 8km. Nearest habitation are Balibad – 1.2 km.

(v) The Kuldiha Wildlife Sanctuary is at 5.5 km from project site and there is no other national park or bird sanctuary within 10 km radius of the project site. The Kuldiha Wildlife Sanctuary has notified the Eco-sensitive zone vide SO 2539(E) dtd 9th August 2017.

(vii) NOC from D.F.O has been obtained vide letter no. 10978/3F – Lease F. No. 09/2021 Dated. 30/12/2021 mentioning that the proposed project is outside the Eco Sensitive Zone of Kuldiha Wild Life Sanctuary and is at a distance of more than 3 Km.

(viii) Public hearing details: The public hearing for the proposed Greenfield Project for Installation of Common Bio-medical Waste Treatment & disposal facility was conducted on 12.10.2022 at 10.30 AM at Nuapur- Dahipur Melanpodia, Mouza - Dahipur, PO - Radhabalrampur, Tahasil-Soro, District - Balasore. Issues raised during the public hearing were smell due to storage and reprocessing of Bio-medical wastes by the project, apprehension on generation of Methane gas from the unit during storage for the longer period, discharge of effluent from the project site and contaminating the nearby water bodies used by the local people, human settlement present near the proposed project site and providing employment to local people. A total amount of Rs. 2.6 Lakh would be utilized for CER program. Budget allocated for the action plan of the public hearing is Rs. 22.15 lakhs.

(viii) Land-use: The total land, acquired for the facility is 6070.28 Sq.m (1.5 acre). The land use breakup of the proposed facility is as following

S. No.	Facilities	Area (Sq.m)
1.	Plant Facilities (Waste storage rooms, autoclave, incinerator, shredder etc.)	437.06
2.	Administrative and auxiliary facilities	157.83
3.	Rain Water Harvesting Pond	898.40
4.	ETP	700.11
5.	Vehicle Wash	98.29
6.	Green Belt area	2015.33
7.	Parking	178.06
8.	Internal roads	1189.78
9.	Miscellaneous	295.42
	Total	**6070.28**

(ix) Baseline details: The baseline study was conducted during 1st March 2022 to 31st May 2022 during Pre-monsoon season. Following results have been obtained.

a) Respirable Particulate Matter PM_{10}: Maximum value - 85.7µg/m^3 and minimum value - 53.9µg/m^3. The average values to be in the range of 71.9 to78 µg/m^3 and the 98% tile were observed by in the range of 79.7 to 85.7µg/m^3.

b) Particulate Matter ($PM_{2.5}$): Maximum value - 48.7µg/m^3 and minimum value - 31.2µg/m^3. The average values to be in the range of 39.2 to 42.9µg/m^3 and the 98% tile was observed by in the range of 45.6 to 48.5µg/m^3.

c) Oxides of Nitrogen (NO_2): Maximum concentration of NO_2 - 18.4 µg/m^3 and minimum value - 9.5 µg/m^3 observed. The average values to be in the range of 12.4 to 14.5 µg/m^3 and the 98% tile was observed by in the range of 16.3 to 18.3 µg/m^3.

d) Sulphur Dioxide (SO_2): Maximum concentration of SO_2 - 9.6 $\mu g/m^3$ and minimum value -5.1 $\mu g/m^3$. The average values to be in the range of 6.5 to 8$\mu g/m^3$ and the 98% tile was observed by in the range of 7.6 to 9.6 $\mu g/m^3$.

e) Carbon Monoxide (CO): Maximum concentration of CO is observed to be 510 $\mu g/m^3$ and minimum value of 200 $\mu g/m^3$. The average values to be in the range of 331 to 418 $\mu g/m^3$ and the 98% tile was observed by in the range of 450 to 510 $\mu g/m^3$.

f) Ground Water Quality: The pH values observed were in the range of 7.72 to 8.08; with total dissolved solid ranging from 620 mg/l to 7 8 0 mg/l. Total Hardness was in the range of 258 mg/l to 300 mg/l. The concentration of alkalinity was in the range of 246 to 290 mg/l.

g) Surface Water Quality: The pH values observed were in the range of 7.52 to 7.83 with total dissolved solids in the range of 356 mg/l to 510 mg/l. BOD were observed less than 3.1 mg/l. Chloride varied between 84 mg/l & 160 mg/l. Sulphates varied from 16 to 23 mg/l, Nitrate varied from less than 0.8 to 2.2 mg/l.

h) Soil: It has been observed that the pH of the soil ranged from 7.77 to 7.98 indicating that the soils are slightly alkaline to moderately alkaline in nature. The electrical conductivity was observed to be in the range of 169 to 190 µS/cm. The nitrogen concentrations are in the range of 40 to 56 mg/kg. The phosphorous concentrations are in the range from 2.8 to 3.7 mg/kg.

(x) Flora and Fauna: No Schedule- I type fauna is found in the study area. No wildlife is found in the study area. No threatened, rare, or endangered plant species are found in the study area. There is elephant corridor within study area where the movement of Elephant has been observed. The Forest department has made barricading in Gangajal Ghati (Protected Forest). The elephant corridor is situated on another side of Damodar River in South at approx. 8 km w.r.t project site.

(xi) Water Requirement: Total water requirement will be 21 KLD out of which 13 KLD will be fresh water which will be sourced from the Soro Block via Pipeline and rest 8 KLD will be reused after proper treatment.

S. No	Unit Process	Quantity of Water Used (KLD)	Remark
1	Process Water (Autoclave & other process)	9.0	
2	Domestic Purposes	3.0	
3	Green belt	6.0	Recycled -6.0 KLD
4	Vehicle & Floor Washing	3.0	Recycled water -2.0 KLD + Fresh water -1 KLD
	TOTAL	**21.0**	
	Total fresh water	13.0	
	Total recycled water	8.0	

(xii) ETP: An ETP of 15 KLD capacity will be established to treat the scrubbed water, floor washings and other wastewater from the plant and recirculate the treated water into the scrubber (APCD) as well as utilize in the greenbelt development making the system as zero discharge system.

(xiii) Power Requirement: The power required for the facility is 100 KW and will be procured from nearest grid. For emergency backup, a 1 DG set (100 KVA) is proposed.

(xiv) Fuel Requirement: Diesel which will be used as fuel for incinerator will be stored at the premises. Total quantity of 432 Lit/day will be required and will be stored with storage capacity of 500 liters.

(xv) Greenbelt: A three tier canopy green belt will be developed with flowering species to abate dust, noise, and odour and to increase the aesthetic value. The green belt will cover 33.19% of the total project area i.e., 2015.28 sqm (0.498 acres). About 350 numbers of saplings are recommended for developing the green belt to abate dust, noise, odour, and soil erosion.

(xvi) Traffic study: The LOS study shows that the present traffic scenario is "Excellent", and the free flow of vehicles is observed during the study period. Due to the proposed project the traffic density will increase as all the biomedical waste will be transported through the road under study. The traffic conditions through V/C ratio does not change even after the proposed traffic load.

(xvii) Required Manpower: 48 persons are proposed to hire for the manpower requirement including skilled and unskilled for the proposed project during operational phase.

Sr. No.	Details	Manpower
1.	Management /Skilled	6
2.	Business Development	5
3.	Management /Skilled	6
4.	Semi-Skilled/supervisory staff	6
5.	Unski lled	8
6.	Drivers	7
7.	Helpers	7
8.	Security	3
	Total	**48**

(xviii) Project cost: The cost of the project is Rs 2.60 Crores approximately. Cost towards environmental mitigation measures allocated is Rs. 35.50 lakhs as capital investment and recurring cost of Rs 8.75 lakhs per annum.

S. No.	Particulars	Capital Cost (Rs. in lakh)	Recurring Cost (Rs. In lakhs/ annum)
1	Air Pollution Control Systems wet scrubber etc.	6.0	1.5
2	Effluent treatment plant	5.0	1.0
3	odor management etc.	1.15	0.5
4	Noise Control measures – Acoustic enclosures for DG set, Noise barriers for pumps, boiler, etc.	2.5	0.50
5	Landscaping, Greenbelt development	1.85	1.0
6	Rainwater harvesting, storm water drains	1.5	0.25
7	Online Stack monitoring	10	1.0
8	Ambient Air quality monitoring/ stack monitoring	-	2.5
9	Disposal to Secured Land Fill operator	2.5	0.5
10	CER	5.0	-
Total		**35.5**	**8.75**

(xix) The Environment consultant M/s Grass Roots Research & Creation India (P) Ltd., Noida along with the proponent made a presentation on the proposal before the Committee on 14.02.2023.

(xx) The PP submitted ADS to SEAC on 10.05.2023.

(xxi) Any deficiencies/omission have been noticed in the above documents-

2. **Whether SEAC recommended the proposal** – Yes. The SEAC meeting held on 12.07.2023 recommended for grant of Environmental Clearance for the project valid for a period of 10 years with stipulated conditions.

Decision Of Authority: Approved

After detailed deliberation in the matter, the Authority decided to grant EC as recommended by SEAC subject to submission of the following:

(i) Signed Copy of MOU of incineration of Ash.

(ii) Compliance to the petition dt. 09.08.2023 filed by Sri Bipin B Sarangi, M.D, Utkal Envirocare Solution Pvt. Ltd. (Copy enclosed)

APPROVED BY

Member Secretary, SEIAA **Member, SEIAA** **Chairman, SEIAA**

AGENDA NO.131.09	
Proposal No.	SIA/OR/MIN/273587/2022
Date of application	19.05.2022
File No.	J-11015/47/2020-IA.II (M)
Project Type	Amendment in EC
Category	B1
Project/Activity including Schedule No.	1(a) Mining of minerals & 2(b) Mineral beneficiation
Name of the Project	Proposal for amendment in EC for Khatkurbahal (North) Limestone Block (156.43 ha) with limestone production capacity of 1.6 MTPA along with proposed crusher and screen with capacity of 800 TPH at Sundergarh Odisha
Name of the company/Organization	Applicant: Shiva Cement Ltd; Sri. Manoj Kumar Rustagi, Whole Time Director Address:YY-5, Civil Township, Industrial Estate Rourkela, Sundargarh Orissa 769004
Location of Project	at Villages Khatkurbahal & Phalsakani, Tehsil Kutra, District Sundargarh
EC Date	17.03.2022

1. Proposal in brief:

The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.

(i) The proposal is for Modification of Environmental Clearance of Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) with limestone production capacity of 1.6 million TPA at Villages Khatkurbahal & Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha w.r.t inclusion of minor mineral Dolomite (2.4 MTPA) for sale, installation of 600 TPH capacity crusher for Dolomite within ML area and permission for sale of limestone (up to 1.6 MTPA) in open market for M/s Shiva Cement Limited of Sri Manoj Kumar Rustagi.

(ii) This is a proposal of Shiva Cement Limited for getting Amendment in existing Environment Clearance Letter No J-11015/47/2020-IA-II(M) dated 17.03.2022 granted by MoEF&CC in favor of Shiva Cement Limited for Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) with limestone production capacity of 1.6 million TPA at Villages Khatkurbahal & Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha w.r.t inclusion of minor mineral Dolomite (2.4 MTPA) for sale, installation of 600 TPH capacity crusher for Dolomite within ML area and permission for sale of limestone (up to 1.6 MTPA) in open market .

(iii) Location and Connectivity - The mine is situated near Villages- Khatkurbahal & Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha. The latitude is 220 16'45.31025" N to 220 17'10.12835" N and 840 27'36.13496" E to 840 29'18.22107" E. The project falls under Category" B" Project or Activity 1(a) – 4 for "Mining of Minerals" as per MoEF&CC, Govt. of India Notification as the Mining Lease Area is less than 250 ha.

(iv) M/s. Shiva Cement Limited has an existing Cement Plant with clinker production capacity 3.0 million TPA & Cement 2.0 million TPA at Village Telighana. Tehsil- Kutra, District Sundargarh, Odisha. Environment clearance has been obtained from MoEFCC vide File No J-11011/84/2008-IA.II (I) dated 23.03.2022. To meet the limestone requirement of cement plant, company has two mines:

- Khatkurbahal Limestone & Dolomite Mine (ML Area- 72.439 ha) with Production Capacity 1.5 million TPA Near village – Khatkurbahal & Kulenbahal, Tehsil – Kutra, District –Sundergarh

(Odisha). Environment Clearance for the same has been obtained from SEIAA, Odisha vide letter No 37895/62-MINB1/11-2021 dated 11.03.2022.

- Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) with limestone production capacity of 1.6 million TPA at Villages Khatkurbahal & Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha. Environment clearance has been obtained from MoEFCC vide File No J-11015/47/2020-IA.II (I) dated 17.03.2022.

(v) Project Proposal is for Amendment in Existing Environment Clearance vide Letter No J- 11015/47/2020-IA-II(M) dated 17.03.2022 granted by MoEFCC in favor of Shiva Cement Limited for Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) with limestone production capacity of 1.6 million TPA at Villages Khatkurbahal & Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha w.r.t inclusion of minor mineral Dolomite (2.4 MTPA) for sale, installation of 600 TPH Crusher for Dolomite and also permission for sale of limestone (upto 1.6 MTPA) in open market . Letter of Intent (LOI) as per Rule 10(2) of the Mineral (Auction) Rules, 2015 for grant of Mining Lease for Limestone was issued by the Government of Odisha in favor of M/s. Shiva Cement Limited for Khatkurbahal (North) Block Mine (ML Area 156.43 ha) vide letter no. 9010/S&M, Bhubaneswar dated 18.11.2019 and a corrigendum in LOI w.r.t area correction was issued on 14.02.2020. It may be noted that this auctioned mine is a merchant block with no end use condition. Environment Clearance has been granted by MoEF&CC vide letter No. J-1105/47/2020. IA. II (M) dated 17.03.2022 for Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) for total excavation of 5.543 million TPA [Limestone 1.6 MTPA and Mineral Reject 0.035 MTPA (ROM 1.635 million TPA), Top soil 0.033 million TPA and waste 3.875 million TPA (covering 2.42 million TPA of Dolomite as waste)]. Now, Shiva Cement Limited has a proposal to utilize Dolomite as a minor mineral for which Revised LOI has been issued with inclusion of Dolomite by the Department of Steel & Mines, Government of Odisha vide letter no 1216/S&M, (AE) (Exp.) SM-05/2021, Bhubaneswar dated 02.02.2021. With the utilization of Dolomite as a minor mineral for sale, there will be no change in proposed total excavation (i.e. 5.543 million TPA) as permitted in the existing Environment Clearance of the above mine. Approval of Modification in Mining Plan w.r.t inclusion of Dolomite has also been issued by the Ministry of Mines (IBM) vide letter no MPM/A/01/-OR/BHU/2021-22 dated 24.04.2021.

(vi) Reason For Amendment: Both Limestone and dolomite resources are considered for the valuation of resource in the Tender document of Khatkurbahal (N) block and both the minerals were taken into account for the calculation of upfront payments and performance security. Limestone resource is 49 Million MT whereas Dolomite resource is 76 Million MT which is ~ 1.5 times of limestone resource. However, without excavation of dolomite, limestone cannot be extracted as limestone is overlain by dolomite. The Avg sale price per ton of Limestone as on feb'2022 is INR 421.00 whereas the Avg sale price per ton of Dolomite as on Mar'2021 is INR 795.00. Considering the depth of limestone availability and its exploitation, the economic viability of the project is wholly dependent on the sale of dolomite. Dolomite mineral was inadvertently not mentioned in the initial LoI issued to Shiva Cement Ltd. Secondly, the District Survey Report (DSR) of Dolomite which is a pre-requisite for filing application for EC of minor minerals was also not available with the state govt. at the time of issue of LoI. Since the execution of our captive cement plant was already in progress, SCL had to apply for EC for Limestone only while considering the entire quantity of Dolomite, i.e. 2.4Million TPA as waste as suggested by the non-coal mining EAC, MoEF&CC. The environmental impact assessment of mining and stacking of 2.4 Million TPA dolomite (considered as waste) has already been carried out during the EIA studies. Now, District Survey Report (DSR) of Dolomite has been issued by the District Collector on 28-02-2022, SCL has applied for amendment in the existing environment clearance (EC) w.r.t inclusion of minor mineral Dolomite 2.4 million TPA for sale in open market without increasing the total excavation, i.e., 5.543 million TPA in order to utilize Dolomite (minor mineral) as a mineral which was earlier categorized as waste. 600 TPH crusher is also proposed for crushing of Dolomite within ML area. In addition, since

this is a merchant mine with no end use restrictions. Company is also seeking amendment in the existing EC for grant of permission for sale of limestone (up to 1.6 MTPA) in open market.

(vii) The project proponent along with the consultant M/s J.M. EnviroNet Pvt. Ltd., Gurugram- (Haryana) made a detailed presentation on the proposal on 03.08.2022.

(viii) The PP submitted ADS to SEAC on 09.09.2022.

(ix) The Proposal was placed in the meeting of SEAC held on 02.11.2022 for amendment in EC and the SEAC have recommended for amendment in EC for inclusion of minor mineral Dolomite (2.4 MTPA) as ore and installation of 600 TPH capacity crusher for Dolomite within ML area Along with additional conditions.

(x) The proposal was place in the SEIAA meeting held on 19.01.2023 and the Authority decided to referred back to SEAC for reconsideration of the proposal with the following observation:

i) The extant proposal involves change of product mix by including dolomite as an "Ore" in place of "Waste".

ii) The proposal also involves setting up of 600TPH crusher with consequent increase in pollution load.

iii) As per MoEF&CC, GoI OM F.No.IA.3-22/10/2022-IA.III (E 177258) dated 11.04.2022 capacity addition with change in product mix or increase in pollution load require revised EIA/EMP report. The SEAC may give their considered view whether there is requirement of fresh Public Consultation in light of MoEF& CC, OM dated 11.04.2022.

iv) The DSR of dolomite mining in Sundargarh District has not been approved by SEIAA& SEAC as per Order dated 10.11.2021 of Hon'ble Supreme Court in CA No-3661-3662 of 2020 in the matter of the State of Bihar & Others Vrs Pawan Kumar & Others.

v) In regards to the Transportation of mineral by road, the EAC of Ministry in its 42nd meeting has warned the consultant for non-compliance of ToR & recommended the EC in its 46th meeting after submission of an Undertaking by PP dated 28.01.2022 that the "Environmental Clearance, if granted, will be functional only after installing the Over Land Belt Conveyor (OLBC) for Captive Consumption of Limestone."

vi) In view of this Suo-moto declaration, the Authority decided that the SEAC may re-examined the proposal in the light of MoEF & CC, Govt. of India OM dated 07.07.2021 for any violation.

(xi) The SEAC sought ADS on the observation made by SEIAA.

(xii) The PP submitted ADS to SEAC on 23.05.2023.

(xiii) Any deficiencies/omission have been noticed in the above documents-Nil

2. **Whether SEAC recommended the proposal** – The proposal was placed in the SEAC meeting held on 13.07.2023 and the SEAC have **returned the proposal** with the following observation:

(i) Decision on the proposal shall be taken after the DSR of dolomite mining in Sundargarh District has been approved by SEIAA & SEAC.

(ii) An undertaking shall be submitted that they shall abide by the undertaking submitted to MoEF & CC, Govt of India dtd. 28.01.2022 that "Environmental Clearance, if granted, will be functional only after installing the Over Land Belt Conveyor (OLBC) for Captive Consumption of Limestone".

(iii) Project proponent needs to clarify that the crusher is for dry grinding of the ore and the reported emissions are for conditions of dry grinding.

(iv) There is a change in Product Mix from earlier EC for which the PP is adding 600 tph Crusher to process the Dolomite. Therefore, this may be considered as a fresh EC and PP may be advised accordingly.

(v) Also the PP should not apply for EC with permission to sell, rather the EC to be applied for fresh equipment installation with change in product mix and all related issues to be complied.

(vi) All other points asked are also to be complied while applying

Decision Of Authority: Rejected

The Authority perused the observation of SEAC which is reproduced below:

(i) Decision on the proposal shall be taken after the DSR of dolomite mining in Sundargarh District has been approved by SEIAA & SEAC.
(ii) An undertaking shall be submitted that they shall abide by the undertaking submitted to MoEF & CC, Govt of India dtd. 28.01.2022 that "Environmental Clearance, if granted, will be functional only after installing the Over Land Belt Conveyor (OLBC) for Captive Consumption of Limestone".
(iii) Project proponent needs to clarify that the crusher is for dry grinding of the ore and the reported emissions are for conditions of dry grinding.
(iv) There is a change in Product Mix from earlier EC for which the PP is adding 600 tph Crusher to process the Dolomite. Therefore, this may be considered as a fresh EC and PP may be advised accordingly.
(v) Also, the PP should not apply for EC with permission to sell, rather the EC to be applied for fresh equipment installation with change in product mix and all related issues to be complied.
(vi) All other points asked are also to be complied while applying.

The Authority agrees with the recommendation of SEAC and the application for amendment in EC is rejected.

APPROVED BY

Member Secretary, SEIAA **Member, SEIAA** **Chairman, SEIAA**

16.08.23

AGENDA NO.131.10	
Proposal No.	SIA/OR/MIN/240815/2021
Date of application	26.11.2022
File No.	240815/83-MINB2/11-2021
Project Type	EC
Category	B2
Project/Activity including Schedule No.	1(a) Mining of minerals
Name of the Project	Proposal for EC for Proposal for Fresh EC of Basinggorja Decorative Stone Mine over an area of 2.428 Hectares in village-Basinggorja, Tahasil- Gunupur District-Rayagada
Name of the company/Organization	Applicant: M/s Stone Fields;
Location of Project	village- Basinggorja, Tahasil- Gunupur District- Rayagada

1. **Proposal in brief:** The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.

(i) This is a proposal for Environment Clearance of for Basinggorja Decorative Stone Mines over an area of 2.428 Hectares in village - Basinggorja under Tahasil - Gunupur of District - Rayagada, Odisha of Sri G. R. Samyukta.

(ii) Basinggorja Decorative Stone Mine over an area of 2.428Ha of M/s. Stone Fileds, Prop-Smt. G.R.Samyukta is located in village Bassinggorja under Gunupur Tahsil of Rayagada District Odisha. The lease was granted to M/s. Stone Fields being the successful bidder for tenure of 20 (Twenty) years from the date on which this executed deed is registered.

(iii) The Mining Plan has been approved by the Joint Director of Mines, Directorate of Mines, Bhubaneswar, Odisha. under section 2 of Rule 28 (4) of OMMC, 2016 as per clause 5.

(iv) Mining plan prepared by Sri H.C. Sahoo, vide his IBM's Regn. No. RQP/BBS/033/2001/A was approved on 24.10.2006 by the Directorate of Mines, Odisha, Bhubaneswar for the purpose of grant / execution of the mining lease and mining operation was commenced in FY 2006-07 by the submission of an opening notice to the concerned department of State Govt.

(v) Subsequently, Scheme of Mining consisting of review of Mining Plan for 5 years from 2006-07 to 2010-11 and year wise development for next 5 years from 2011-12 to 2015-16 was prepared by the RQP, Sri S.C. Nayak, vide his IBM's Regn.No. RQP/CAL/211/95/A and submitted by the Lessee for approval. Scheme of Mining could not be processed for approval due to sad demise of the proprietor, Late G.N.V Naidu.

(vi) Since the period of submitted Scheme of Mining was valid up to 31.03.2016, the next Scheme of Mining of Basinggorja Decorative Stone Mine over an area of 2.428 hectares prepared by Sri S.C. Nayak vide his DM's registration number RQP/OD/029/2015 under Rule 18(2) of GCDR, 1999 for a period of 5 years from 2016-17 to 2020-21 was approved by the Directorate of Mines, Odisha, Bhubaneswar.

(vii) Since the approved Scheme of Mining is valid up to 31.03.2021, the present Scheme of Mining has been prepared by the same RQP, Sri S.C. Nayak vide his DM's Regn No.RQP/OD/029/2015, M/s MINESKETCH Consultants (P) Ltd, Flat No.205, Bhagwan Tower, Cuttack Road, Bhubaneswar-751006

(viii) Location and Connectivity - The lease area under reference featured in the Survey of India Topo sheet no. 65M/16 is on Khata No 9, Plot No.2/p. The geo coordinates of the lease area is 19°06'47.46"N to 19°06'51.60"N & 83°52'11.52"E to 83°52'05.40"E.The area is located 80 km from District Headquarters Rayagada and 246 Km from State Capital Bhubaneswar. Nearest railway stations is at Gunupur at an distance of 7.8 KM(SE). The lease area can be approached

from SH: 4 & NH: 326 (Jeypore highway) at a distance of 7.5 Km & 20 Km. Nearest Airport is Jeypore Airport which is at a distance of 206 Km. There is neither seasonal nor perennial nala within the lease area. Drainage system in the region is dendritic. Surface runoff water in the region will be discharged to the natural drainage course.

(ix) Reserve Estimation has been calculated as 273486cum.

(x) The lease has proposed to excavate a total of 24,000 m3 of decorative stone and 4800 m3 (max) annually from Bassinggorja Decorative Stone Quarry. The method of mining is Open cast semi-mechanized. The life of mine is 32 years. A total of 30,000 m3 waste is likely to be generated during the plan period.

(xi) Power requirement: Power requirement is 100 KVA shall be required for lighting during night time and shall be taken from the State Grid. Necessary permission shall be taken after commencement of the project. Diesel will be used for running of equipments during mining operation. It is estimated that 1 KLD of diesel will be required and same shall be procured from local pump station.

(xii) Water requirement: Water requirement for the project is 8 KLD for domestic, plantation & dust suppression which will be sourced from Govt sources of water.

(xiii) Green Belt Development: About 2000 sapling of local species will be planted over an area of 0.4 ha in 7.5m wide safety zone along lease boundary, Haul Road side.

(xiv) Employment Potential: Total manpower requirement is 42no.s. Administrative & supervisory personnel will be 7 numbers and 32 workers will be employed per day under skilled, semi-skilled & un-skilled category in the quarry with 3 nos. of absentee. Indirect employment through creation of shops/ stalls, hired vehicles etc. also can be generated to full fill the day to day requirements of the mining personnel's.

(xv) The cost of the project is Rs. 110 lakhs. EMP capital cost of the project is 14.0 Lakh. EMP Recurring cost is 8.80Lakh/Annum. CSR Budget is 9.0 lakh/Annum

(xvi) The proponent has made a presentation on the proposal before the Committee on 18.05.2022.

(xvii) The PP submitted ADS to SEAC on 07.10.2022.

(xviii) The SEAC in its meeting dated 02-11-2022 recommended for grant of Environmental Clearance with stipulated conditions.

(xix) The proposal was placed in was placed in the meeting of SEIAA held on 13.12.2022 for consideration of EC and the Authority referred back the proposal to SEAC with the following observation:

"In response to ADS raised by SEAC, the PP vide his letter dated 10.07.2022 at Point No.3 has mentioned that production has been done "beyond the limit in approved mining plan". In view of this Suo-moto declaration, the SEAC may re-examined the proposal in the light of MoEF & CC, Govt. of India OM dated 07.07.2021 for any violation.

(xx) The SEAC in its meeting held on 14.02.2023 sought ADS on the observation of SEIAA.

(xxi) The PP submitted ADS to SEAC on 14.04.2023.

(xxii) Any deficiencies/omission have been noticed in the above documents-Nil

2. **Whether SEAC recommended the proposal** – The proposal was placed in the SEAC meeting held on 13.07.2023 and the SEAC have recommended that SEIAA may treat the case as violation case as the lessee has gone for excess production without environmental clearance and action may be taken in the light of MoEF & CC, Govt. of India OM dated 07.07.2021 for such violation.

Decision of Authority: ADS

The Authority accepted the recommendation of SEAC for treating the case as a violation case. The PP is required to submit the following:

1) Reports as mention below to be prepared by a NABET accredited Consultant as per MoEF & CC,GoI guideline OM dated 07.07.2021.
   - Damage assessment report
   - Remedial Plan

Natural & community augmentation plan

2. A certificate from Chartered Accountant with UDIN number on total project cost & total turnover during the period of violation.

APPROVED BY

Member Secretary, SEIAA **Member, SEIAA** **Chairman, SEIAA**

AGENDA NO.131.11	
Proposal No.	SIA/OR/MIS/76437/2022
Date of application	24.12.2022
File No.	76437/1501-MIS/12-2022
Project Type	ToR
Category	B1
Project/Activity including Schedule No.	8(b) Townships and Area Development projects
Name of the Project	Proposal for grant of ToR for Construction New Hostel Block Building of XIM University Bhubaneswar spread over a plot area of 2,22,575.40 Sqmt (55 acre) with total Built up area of 1,70,773 Sqmt at Mouza-Nijigarh,Village-Kurki,under Pipli Block, District-Puri
Name of the company/Organization	Applicant: XIM University
Location of Project	at Mouza-Nijigarh, Village-Kurki,under Pipli Block, District-Puri

1. **Proposal in brief:** The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.

(i) The proposal was considered by the committee to determine the "Terms of Reference (ToR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.

(ii) This proposal is for Terms of References (TORs) for obtaining environmental clearance of proposed construction of new hostel block building of XIM University Bhubaneswar over built-up area of 1,70,773 sqm At Mouza- Nijigada Kurki, Harirajpur, Dist- Puri of M/s. XIM University Bhubaneswar.

(iii) Category: As per EIA notification,2006 and its subsequent amendments, this project falls under category B of schedule 8(b)- Townships and Area Development projects.

(iv) Project details: Earlier, they had applied for environment clearance to SEIAA on 15.09.2014 for 1,44,160.0 sqm built up area and the SEAC presentation was held on 29.11.2014. But as per the Gazette of India, Notification dt. 22nd December 2014; educational Institutes having less than 1,50,000 sq. mtrs. of built-up area are exempted from obtaining Environmental Clearance. So, the project is exempted from obtaining Environment Clearance. Now, they have planned to increase the built-up area from 1,44,160.0 sqm to 1,70,773 sqm due to construction of a new hostel block. Hence, they are applying herewith for the Terms of References (ToRs) to go for Environment Clearance.

(v) BDA has approved the building plan for existing project vide letter no. 15450/BDA, Bhubaneswar, dated 30.04.2022.

(vi) NOC from IDCO for Water Supply has been permitted vide letter no. IDCO/BCD-II/900, dated 18.07.2012.

(vii) Location and connectivity: The campus is located in the Village- Kurki, Mouza- Nijigarh under Pipli Block, Puri District of Odisha. The geographical coordinates of the project site is bounded by Latitude - 20° 09' 22.18" N & Longitude - 85° 45' 59.36" E. The site falls in the Survey of India toposheet no. 73H/12 & 73H/16. The site is located about 13.8 kms away from the Baramunda Bus Stand and 11.5 kms from the Biju Patnaik International Airport, Bhubaneswar. Bhubaneswar railway station is approximately 14.7 kms from the campus. Sundarapada-Jatani Road is passing

near by the project site, which is connecting to Khurda-Jatani-Pipili Road. The entire property has been planned with well-connected road network/drives/pathways.

(viii) Area details: For this project, 2,22,575.42 sqm. (55.0 Acre) of land has already been acquired. Total Built up area of the project is 1,70,773 sqm.

Table: Area details

Particular	Proposed	Permissible
Project Name	New Hostel of XIM University	
Plot Area	2,22,575.42 sqm (55 acre)	
Ground Coverage	34423 .00 sqm. (15.46%)	
Total Built up Area	1,70,773 sqm	
FAR	0.77	
Maximum Height	31.5 m	
Road & Paved Area	114229.4 sqm	
Parking Area	69,706 sqm	69344 sqm (40% of BUA)
Green Belt Area	73,923 sqm (33.2% of the plot area)	44,515 sqm (20% of the plot area)
Power/Electricity Requirement & Sources	800 KVA Source: TPCODL	
No. of DG sets	2x500 KVA, 4x250 KVA, 1x125 KVA,1x62.5 KVA	
Fresh Water requirement & Sources	273.0 KLD Source: IDCO Supply	--
Sewage Treatment Plant	STP – 0.55 MLD	
Estimated Population-Residential, Floating	Residential – 3000 Nos. Floating – 600 Nos.	

(ix) Drainage: The study area is drained by a number of streams of different order. The drainage is mainly defined by the Gidighai Nala. They all act as distributaries of Daya River which flows in the extreme South direction of the buffer zone. The drainage in project area shows a radial and dendritic pattern and is mostly the result of topography rather than structurally controlled.

(x) Land breakup:

Particular	Existing	Proposed	Total
Plot Area	1,41,169.0 sqm (35 Acre)	81,406.4 sqm (20 Acre)	2,22,575.40 sqm (55 acre)
Ground Coverage	31,389.0 sqm (14.10%)	3,034.0 sqm (1.36%)	34,423.0 sqm (15.46%)
Total Built up Area	**1,44,160.0 sqm**	**26,613.0 sqm**	**1,70,773.0 sqm**
FAR	0.65	0.12	0.77
Maximum Height	--	--	28 m
Road & Paved Area	--	--	114229.4 sqm
Basement Parking	1,050.0 sqm	--	1,050.0 sqm
Stilt Parking	1,538.0 sqm	--	1,538.0 sqm
Surface Parking	55,438.0 sqm	9,092.0 sqm	67,118.0 sqm
Total Parking Area	**58,026.0 sqm**	**9,092.0 sqm**	**69,706.0 sqm**
Green Belt Area	29,075.0 sqm	44,848.0 sqm	73,923 sqm (33.2% of the plot area)

Power/Electricity Requirement & Sources	1283 KW Source: TPCODL	235.0 KW Source: TPCODL	1518.0 KW Source: TPCODL
No. of DG sets	2x500 KVA & 1x300 KVA	--	2x500 KVA & 1x300 KVA
Fresh Water requirement & Sources	192.0 KLD Source: IDCO Supply	81.0 KLD Source: IDCO Supply	273.0 KLD Source: IDCO Supply
Sewage Treatment Plant	STP – 300 KLD	STP – 250 KLD	STP – 550 KLD

(xi) Water requirement: Freshwater make up of 273.0 m^3/day will be required for the project which will be sourced from IDCO supply water.

(xii) Wastewater generation and Treatment: Every building generates wastewater amounting about 80% of total water consumed. The major source of wastewater includes the grey water from kitchens, bathrooms, and black water from toilets. It is expected that project will generate approx. 353.4 m^3/day of wastewater. The wastewater will be treated in the STP of capacity of 550 KLD provided within the complex.

(xiii) Rainwater harvesting: Rainwater harvesting has been catered to and designed as per the guideline of CGWA. Peak hourly rainfall has been considered as 37 mm/hr. The recharge pit of size 4.0 m diameter and 2.5 m effective depth is constructed for recharging the water. At the bottom of the recharge well, a filter media is provided to avoid choking of the recharge bore. Total no. of proposed rainwater harvesting pits are 40.

(xiv) Power requirement: The daily power requirement for the institutional building is preliminarily assessed as 1518.0 KW which will be sourced from TPCODL. To meet emergency power requirements during the grid failure, there is provision of DG set having 2 nos. of 500 KVA, 4 nos. of 250 KVA, 1 no. of 125 KVA & 1 no. of 62.5 KVA capacities for power back up in the institutional building project. The XIM Campus have installed 620 KV Solar Panel.

(xv) Firefighting: Firefighting system will be installed as per recommendation of the Firefighting Officer, Odisha, Bhubaneswar and as per the guideline of NBC (part-4). The firefighting system comprises of hose reel, down comer, manual operated electric fire alarm system, terrace tank, extinguisher, and terrace pump. Safe evacuation route for building residents should be cleared marked to ensure safety of residents during any emergency.

(xvi) Greenbelt: The plantation matrix adopted for the green belt development includes pit of 0.3 m x 0.3 m size with a spacing of 2 m x 2 m. Multi-layered plantation comprising of medium height trees (7 m to 10 m) and shrubs (5 m height) are proposed for the green belt. Green belt will be developed over an area of 73,923 sqm (33.2 %) of the plot area by using the local species like Radhachuda, Nageswar, Akash Neem, Ashok, Polanga, Karang, Bela, Pijilu, Kaniara, Tagar, Hena, etc.

(xvii) Parking details: Total Parking Area provided is 69706 sqm

Parking Area Provided			
Basement Parking			1050.0sqm
Stilt Parking			1538.0 sqm
Surface Parking			67118.0sqm
Total Parking	--	--	**69706.0sqm**
Equivalent Car Space Provided			
	Area(sqm)	**Area/ECS**	
Basement Parking	1050	32	33 ECS
Stilt Parking	1538	28	55 ECS
Surface Parking	67118	25	2685 ECS
Total Parking Provided			**2773 ECS**

(xviii) Solid waste generation: During operation phase, from the residential complex solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.45 kg/person/day, which will be about 1350 kg/day. Around 40 kg/day of STP sludge will be generated.

Table: Solid waste Generation

S. No.	Category	Counts (heads)	Waste generated (kg/day)
1.	Residential	3000 @ 0.45 kg/day	1350.0
2.	Floating Population	600 @ 0.15 kg/day	90.0
3.	STP sludge		40.0
Total Solid Waste Generated			**1480.0 kg/day**

(xix) Project Cost: Estimated cost of the proposed project is 20 crores. EMP cost includes capital cost of 262 lakhs.

(xx) The Environment consultant M/s Centre for Envotech and Management Consultancy Pvt. Ltd, Bhubaneswar along with the proponent made a presentation on the proposal before the Committee on 14.02.2023.

(xxi) The proposed site was visited by the sub-committee of SEAC on 29.03.2023. Following are the observations of the sub-committee:

a) The PP explained that 1.4 lakh sqm approval was taken earlier and completed. Later they applied for additional 24077 sqm approval when the EC was required. Out of this, construction of about 10000 sqm has been done structurally. PP was asked to submit an explanation, why the proposal cannot be a violation case.

b) Since it is an IDCO allotted land, Road and Drain connectivity will be provided by IDCO. However, Road connectivity is there and they have developed a small pond for excess treated besides RWH.

c) Plantations (green belt) are available in existing building and to be extended to the new facilities.

d) PP informed 610 KW solar facility already installed.

(xxii) The PP submitted ADS to SEAC on 01.05.2023 & 01.07.2023.

(xxiii) Any deficiencies/omission have been noticed in the above documents-

2.Whether SEAC recommended the proposal – Yes. The proposal was placed in the SEAC meeting held on 13.07.2023 and the SEAC after detailed deliberations on the proposal in terms of the provisions of the MoEF&CC, Govt. of India SoP Notification dated 07.07.2021, confirmed the case to be of violation of the EIA Notification, 2006 and recommended for issuing Standard Term of Reference along with the following specific Term of Reference for undertaking EIA and preparation of Environmental Management Plan (EMP):

(i) The State Government to take action against the project proponent under the provisions of section 19 of the Environment (Protection) Act, 1986, and further no Consent to Operate to be issued till the project is granted Environmental Clearance.

(ii) The project proponent shall be required to submit a Bank Guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of Environmental Clearance. The quantum shall be recommended by the SEAC and finalized by the regulatory authority i.e. SEIAA, Odisha. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the SEAC and approval of the regulatory authority i.e. SEIAA, Odisha.

(iii) Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.

(iv) Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
(v) The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter in the EIA report by the accredited consultants.
(vi) The proponent shall pay the penalty for such violation as per SoP for violation issued vide OM F No. 22-21/2020/IA. III, dtd. 07.07.2021 of MoEF & CC, Govt. of India.
(vii) Fire disaster management plan specially designed for topmost floors with detailed note on hydrant system pump and water storage.
(viii) Detailed calculation of renewable energy/solar energy along with roof top solar plan layout.
(ix) Clear site layout showing all features of the project and distance from road.
(x) Traffic Study Report to be submitted and vetted from repute institute.
(xi) Structural Stability certificate from appropriate authority as per regulatory authority guidelines be submitted and vetted from repute institute.
(xii) Detailed calculation of Rain Water Harvesting and Layout showing Rainwater Harvesting pits.
(xiii) Layout map showing the treated water fallout to nearest drain and it's distance.
(xiv) Layout of internal drainage map and their fallout to external public drain.
(xv) Copy of permission of the concerned authority of the drain / sewer to discharge the treated water from project to the nearby drain.
(xvi) Reduce discharge of treated water to drain by planting more trees.
(xvii) The greenbelt to be provided along the outer periphery of the plot along the boundary the spacing maybe reduced to 2m x 2m to accommodate more trees and should be planted on a hierarchical pattern.
(xviii) The concept of vertical garden may also be considered apart from landscaping, potted plants, Parks &Gardens.
(xix) The water Treatment Plant, Waste Water Treatment Plant, STP, DG set's location to be marked in the layout plan.
(xx) Adequate overhead portable water tank to be provided as per the norms apart from Treated Waste Water tank for use in dual plumbing system for the flush in the toilet.
(xxi) To submit Sabik RoR with Kisam and Hal RoR with Kisam to rule out involvement of Forest and DLC land in the project.
(xxii) For parking of various types of vehicle adequate provision of basement, Stilt, Open area and Mechanical parking may be considered.
(xxiii) Provision of lift with ventilation, lighting and AC from lowest basement to terrace roof top to be provided.
(xxiv) Efforts for Energy Conservation in the project as per Bureau of Energy Conservation in line with Energy Conservation Act, 2003 to be submitted for the project.
(xxv) Disaster Management Plan for the project may be prepared and submitted as per Disaster Management Act, 2005.
(xxvi) Indicate the system of Storm Water Drainage, Rainwater Harvesting System and Recharge Well.

Decision Of Authority: Approved

After detailed deliberation in the matter, the Authority decided to issue ToR with standard and specific conditions as recommended by SEAC.

APPROVED BY

Member Secretary, SEIAA | **Member, SEIAA** | **Chairman, SEIAA**

10.08.'23

AGENDA NO.131.12	
Proposal No.	SIA/OR/MIN/408894/2022
Date of application	28.12.2022
File No.	408894/768-MINB1/12-2022
Project Type	Proposal for EC
Category	B1
Project/Activity including Schedule No.	1(a) Mining of minerals
Name of the Project	Proposal for grant of EC for Expansion in production capacity of Chromite mineral from 3 Lakh TPA to 6 Lakh TPA from Mahagiri mine (Chromite) Over a ML area of 73.777Ha located in Village - Kaliapani, Tahasil - Sukinda, District - Jajpur of M/s Indian Metals & Ferro Alloys Limited
Name of the company/Organization	Applicant: M/s Indian Metals Ferro Alloys
Location of Project	Village - Kaliapani, Tahasil - Sukinda, District - Jajpur
ToR Date	18.11.2021

1. **Proposal in brief:** The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.

(i) This proposal is for Environmental Clearance for M/s Indian Metals Ferro Alloys for Mahagiri mines (Chromite) for expansion in production capacity of Chromite ore from 3 Lakh TPA to 6 Lakh TPA from over a mining lease area of 73.777 ha. located at Village - Kaliapani, Tahasil - Sukinda, District - Jajpur, Odisha filed by Sri Sandeep B. Narade.

(ii) The State Government granted the mining lease over an area of 73.777 ha. in Village- Kaliapani, Tahasil-Sukinda, District - Jajpur, Odisha. The lease was executed on 20.09.2005 in favour of M/s Indian Charge Chrome Limited for exploitation of chromite ore for a period of 30 years i.e., from 20.09.2005 to 19.09.2035 (Lease validity is deemed to have been extended upto 19.09.2055 as per MMDR amendment act, 2015).

(iii)Transfer of the mining lease from M/s Indian Charge Chrome Ltd. to M/s Indian Metals & Ferro Alloys Ltd. was executed on 19.11.2015. It is a running mine with lease validity up to 19.09.2055 as per MMDR Act.

(iv)Forest Clearance has been obtained for the entire lease area of 73.777 ha. in three phases. First phase FC has been granted on 18.05.2005 vide letter no. F.No. 8-116/2002-FC for an area of 63.91ha. Second phase FC has been granted on 18.11.2014 vide letter no. F.NO.8-116/2000-FC(VOL) for an area of 2.47ha. (Safety zone). While third phase FC has been granted on 30.10.2018 for an area of 7.397ha. (Sabik Kisam Forest) vide letter no. F.No.8-116/2002-FC (Vol.I).

(v) NOC from CGWA has been obtained for extraction of 1000 KLD of groundwater vide letter no. CGWA/NOC/MIN/REN/1/2021/6551, dated 04/06/2021 and valid up to 03/06/2023 where 10 KLD water abstraction is allowed from borewell for drinking & domestic purpose while 990 KLD is through dewatering of mine seepage water.

(vi) The site specific wildlife conservation plan has been approved vide letter no 720/7WL-FD&WLC-209/2020 on dated 25.01.2021 with financial forecast of Rs. 346.032 lakh for various activities.

(vii) The modified Mining Plan for the period 2020-21 to 2024-25 with enhancement in production capacity of 3.0 to 6.0 LTPA of chromite ore from fully mechanized underground mining has been approved by IBM vide its letter no. MRMP/A/17-ORI/BHU/2020-21/784 dated 11.08.2021, which is in force. The proposed production from underground is envisaged to be a maximum of 6.0 LTPA which will be achieved in 2029-30 progressively.

(viii) Earlier Environmental Clearance for production of 3.0 LTPA was granted by MoEF&CC vide letter no. J-11015/345/2007-IA.II (M) dated 29.10.2012 and by subsequent amendments dated 02.01.2014 (for extension in EC validity for grant of Forest Clearance regarding diversion of 2.47ha. of safety zone by 31.01.2015) & 17.03.2015 (deletion of specific condition (iii) of EC letter dated 29.10.2012 & 02.01.2014).

(ix) Present proposal is for expansion of mining of chromite mineral from production capacity 3 LTPA to 6 LTPA from Mahagiri mines of M/s Indian Metals & Ferro Alloys Limited. The entire mine lease area of 73.777 ha. is forest land.

(x) CTO has been obtained from State Pollution Control Board vide letter no. 551/IND-I-CON-5331 dated 07.01.2022 which is valid upto 31.03.2026 for the production of 0.3 MTPA.

(xi) Past production had been certified by Deputy Director Mines, Jajpur road circle, Jaipur vide memo no 757/mines on dated 27.05.2021.

(xii) Six Monthly Compliance report has been submitted for the period of April 2022 to Sep 2022 on dated 24.11.2022 to RO, MoEF. The Project proponent has submitted previous certified compliance report issued by RO, MoEF, Bhubaneswar, vide letter no. 101-331/21/EPE dated 21.10.2021.

(xiii) ToR Details: The project has been granted Terms of Reference by SEIAA, Odisha vide letter no. 3496/SEIAA dated 18.11.2021.

(xiv) Public Hearing details: The public hearing for the project was conducted on 06th July, 2022 at Mahagiri Enclave (Khata No. 53/15, Plot No. 664), Village - Kaliapani, Tahasil - Sukinda, District-Jajpur, Odisha. Local Employment, medical facilities and plantation was the main issues raised during the public hearing. The project proponent has proposed to spend Rs. 200 Lakhs in next five years under social activities.

(xv) Location and connectivity: The lease area of 73.777 ha. is located in village Kaliapani, Tahasil - Sukinda, District - Jajpur, Orissa State. The study area falls in the Survey of India Topo-sheet no. F45N16 and the geo coordinates are Latitude - 21°01'16.66"N to 21°01'56.83"N and longitude 85°46'24.94"E to 85°47'13.58"E. Nearest road is Tomka-Mangalpur road passes in the north-north western side of the mining lease area at a distance of 1.29 km. The project is at a distance of 11.07 km South from NH-200. The nearest railway station is Tomka at 21.60 km from the lease area. Nearest Airport is Birasal Airport at 10.98km. There are no National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site, Tiger/Elephant Reserves within 10 km of the mine lease area. The area comprises hilly and undulating terrain. The Daitari hill range is located in the north and the Mahagiri range occupies the southern portions. The central valley portions of the area is drained by Damsal Nala flowing in westerly direction. It forms the main watershed of the study area. The entire drainage originating from Daitari hills in north and Mahagiri in the south join Damsel Nala.

(xvi) Mining method and production: Mining of Chromite will be done by fully mechanized underground mining in a lease area of 73.777 ha. The process of underground mechanised mining will involve drilling, blasting, loading and transportation. There is no processing or beneficiation process involved, except, ROM is only crushed and screened to different sizes. This method of development and stopping leaves no rib pillars between two stope blocks. A crown pillar of 10 m thickness is being left in between two stopping levels. Drilling is being done by single/double boom jumbo drill & blasting is being done using slurry explosives for development in waste and ore drives. Ultimate pit limit of underground mining will be (-) 395 mRL as per present exploration. The maximum proposed production of Chromite Ore will be 6 LTPA.

(xvii) During the period from 01.04.2021 to 31.03.2025, it is proposed to exploit 15.0 lakh tons of ROM from underground mines. So, the mineral reserve and resource category after 2024-25 shall be 157.45 lakh tons. Life of Mine will be 31 years.

(xviii) Waste generation: Generation of waste in the conceptual period is estimated to be around 8.89 Lakh CuM. The waste generated from underground working shall be utilised for backfilling of mined out areas of opencast working, as well as for ground levelling within the leasehold area for

different land use purposes. The overburden/waste material shall be utilised for backfilling of underground stope voids. In case of the generation of mineral reject, it will be separately stacked within the area designated for Mineral Storage.

(xix) Water requirement: The water requirement of the project will be fulfilled by seepage water which will be used after treatment in ETP located in Sukinda Mines (Chromite) of the same lessee and 10 KLD fresh water from the borewell will be used for drinking & domestic purposes. For this purpose, NOC from CGWA has been obtained for extraction of 1000 KLD of groundwater vide letter no. 21-4(107)/SER/CGWA/2008-1212 dated 12.06.2018 where 10 KLD water abstraction is allowed from the borewell for drinking & domestic purposes and 990 KLD is through dewatering of mine seepage water. Detailed water usage is mentioned in below table.

Particulars	Unit	Existing Quantity	Total after expansion	Source (Groundwater/Surface Water/other)
Drinking & Domestic	KLD	50	60	U/G mine dewatering after treating in WTP
Plantation	KLD	134	143	ETP
Sprinkling	KLD	90	90	ETP
Underground Drilling	KLD	100	150	U/g mine dewatering
Backfilling Plant	KLD	160	160	U/g mine dewatering
Total	**KLD**	**534**	**603**	

(xx) ETP/STP: It is proposed to expand the capacity of existing ETP from 360 cum/hr to 1260 cum/hr and to install the additional ETP of 900 cum/hr capacity in view of increase in the dewatering rate after expansion of the project. Domestic wastewater generated from administrative activities and canteen is treated in the Sewage Treatment plant of capacity 50 KLD. The treated water is used for mines, dust suppression and plantation. Discharge to outside lease area into the natural drainage after meeting SPCB standards is 940KLD.

(xxi) Rain water Harvesting system has been adopted and each year 61985 cum/year of water is harvested.

(xxii) Power requirement: Total power requirement after the proposed expansion project will be 4.0 MVA and it will be met from Central Electricity Supply Utility of Odisha (CESU) grid line. A 2000 KVA Sub-station has been established with 33 KV/433V transformers. Three 750 KVA, D.G. sets have been installed for illumination, ventilation and operation of pumps in case of power failure. The daily consumption of diesel for running machineries & DG set is 5 KLD and after expansion will be 10 KLD. The diesel will be sourced from the M/s Indian Oil Corporation Limited (IOCL).

(xxiii) Greenbelt: Green belt/plantation has been developed around the mining activity area, safety zone, along haul road. In addition, 1.8 ha. out of 5.090 ha. of OB dump area and 2.19 ha. out of 6.9 ha. of backfilled area has also been covered by plantation, around 9.33 ha. is under greenbelt. At the end of the conceptual period around 60.66 ha. area will be reclaimed by plantation.

(xxiv) The baseline data was collected from October 2021- December 2021 .The details are given below:

- Micro- meteorological data:
  - Temperature: Temperature of the area varies from 6.62°C to 31.08°C
  - Relative Humidity: The relative humidity varies from 40.4 to 99.93.
  - Wind Speed: Wind speed normally is in the range of 0.02 Km/hr to 6.86 Km/hr.
- Ambient Air Quality Results - Samples were collected from 8 sampling locations. The following results were obtained.

S.N	Parameters	Mean Value Range (Core Zone)	Mean value Range (Buffer Zone)	Standard
1.	PM 2.5 (µg/m3)	24.15 - 25.97	25.19-37.66	24 hrs: 60 µg/m3
2.	PM 10 (µg/m3)	58.69-63.11	61.22-91.51	24 hrs: 100 µg/m3
3.	SO2 (µg/m3)	6.40-6.92	6.71-10.71	24 hrs: 80 µg/m3
4.	NO2 (µg/m3)	16.77-18.03	17.49-26.33	24 hrs: 80 µg/m3
5.	CO (mg/m3)	0.24-0.25	0.25-0.37	8 hrs: 02 mg/m3

- Noise Quality results: Samples were collected from 9 locations. The following results were obtained.

S. No.	Parameters Leq noise level	Type of Area	Range dB(A) - Core Zone	Range dB(A)- Buffer Zone	Standard in dB(A)
1.	Day Time	Industrial Area	64.9 - 65.5	–	75
2.	Night Time		57.9-58.8	–	70
3.	Day Time	Residential Area	--	56.2-58.2	55
4.	Night Time		--	46.5-48.9	45
5.	Day Time	Commercial Area	–	68.5	65
6.	Night Time		–	62.7	55

- Water Quality Results: The samples were collected from 18 locations (8 samples of ground water 10 samples of surface water).
- Ground water quality- Core zone & Buffer Zone:
  - The Total Dissolved Solids (TDS) of the sampling locations W1, W2, W3, W4, W5, W6, W7, W8 ranges from 49.7 mg/l to 317 mg/l which are within the drinking water standard (IS:10500) i.e. 500 mg/l.
  - The Total Hardness of the sampling locations ranges from 28 mg/l to 260 mg/l. Total Hardness of sampling locations Sukurangi Village and Giringamali village are found higher than the drinking water standards (IS:10500).
  - The Alkalinity of the sampling locations ranges from 31 mg/l to 356 mg/l. Alkalinity of all sampling locations except for Sukurangi Village (356 mg/l), OMC colony (244 mg/l),

Giringamali village (356 mg/l), and Kendubani Village (321 mg/l) are within the drinking water standards (IS:10500) i.e. 200 mg/l.

- The Fluoride content in the sampling locations ranges from <0.1 mg/l to 0.4 mg/l. which are within the drinking water standard (IS:10500) i.e. 1.0 mg/l.
- The Calcium Concentration of sampling locations ranges from 4.8 mg/l to 67.2 mg/l. Calcium levels of sampling locations are within the drinking water standards (IS:10500) i.e. 75 mg/l.
- The Magnesium Concentration of sampling locations ranges from 3.9 mg/l to 25.3 mg/l. Magnesium levels of sampling locations are within the drinking water standards (IS:10500) i.e. 30 mg/l.
- The Chloride Concentration of all the sampling locations ranges from 14 mg/l to 48 mg/l. Chloride levels of all the sampling locations are within the drinking water standards (IS:10500) i.e 250 mg/l.

Surface water quality- The majority of the water quality parameters in the selected sites were within their respective drinking water quality standards. Moreover, DO values fall under class 'D' and 'E' as per CPCB guidelines. Surface water quality criteria indicating that the surface water quality within the region can be used for Irrigation, Industrial Cooling, and Controlled Waste disposal.

- Soil Quality Results: The samples were collected from 18 locations:
- Core Zone: The soil samples collected from the core zone sites show that the soil texture in the core zone is Clay, Sandy clay, Sandy loam, Silt loam, Loam having average fertility in the Core Zone.
- Buffer Zone: The soil samples collected from the buffer zone sites show that the soil texture in the buffer zone is Clay, loam, silt clay and Clay Loam. Primary nutrient profile shows that soil is average fertile due to the availability of low amounts of nitrogen, available potassium.
- Ecology and Biodiversity Results: There are a total 11 Schedule I Species of fauna found in the buffer zone as mentioned, for which site specific wildlife conservation plan has been approved by PCCF & Chief Wildlife Warden, Odisha vide letter no.720/7WLFD&WLC/209/2020 dated 25.01.2021.

(xxv) Manpower: The proposed project will be additional 331 manpower for the proposed expansion in the mine, apart from existing 746 employees.

(xxvi) Project cost: The project cost is Rs. 154.30 Crores (Only for expansion project) and Proposed EMP Capital cost is Rs. 69.66 Lakh and annual recurring cost is 28.69 lakhs.

(xxvii) The Environment consultant M/s Perfact Enviro Solutions Pvt. Ltd, New Delhi, along with the proponent made a presentation on the proposal before the Committee on dtd. 13.01.2023

(xxviii)Any deficiencies/omission have been noticed in the above documents-

2.Whether SEAC recommended the proposal –Yes. The proposal was placed in the SEAC meeting held on 13.07.2023 and the SEAC have recommended for grant of Environmental Clearance with stipulated conditions along with the following specific conditions.

i) The project proponent shall monitor analysis of hexavalent chromium in nearby soil and water body periodically and follow mitigation measures if necessary.
ii) The PP to explore implementation of new technology for removal of hexavalent Cr.
iii) All the compliances submitted/ committed by PP (s) shall be strictly adhered to by them.

Decision Of Authority: ADS

After detailed deliberation in the matter, the Authority decided to seek additional information/document on the following:

1. The PP is required to submit current compliance report of earlier EC condition from IRO, Bhubaneswar as the Certified Compliance Report of EC conditions dated 25.10.2021 enclosed with the application is more than one year.

APPROVED BY

Member Secretary, SEIAA | **Member, SEIAA** | **Chairman, SEIAA**

AGENDA NO.131.13	
Proposal No.	SIA/OR/MIN/405306/2022
Date of application	27.03.2023
File No.	405306/320-MINB1/03-2023
Project Type	Proposal for EC
Category	B1
Project/Activity including Schedule No.	1(a) Mining of minerals
Name of the Project	Proposal for grant of EC for Krushnandpur Paika Nadi Sand Sairat over an area of 12.65 acres or 5.12 hectare under Tirtol Tahasil of Jagatinghpur District
Name of the company/Organization	Sri Damodar Mohapatra S/o-Krutibasa Mohapatra At-Muguria, Po-Dharibil Ps-Kisannagar, Dist-Cuttack, Pin-754134
Location of Project	Tirtol Tahasil of Jagatinghpur District
ToR Date	17.06.2021
Name of the Consultant	M/s Kalyani Laboratories Pvt Ltd (KLPL), Bhubaneswar

1. This proposal is for Environmental Clearance of Krushnandpur Paika Nadi Sand Sairat over an area of 12.65 acres or 5.12 hectares under Tirtol Tahasil of Jagatsinghpur District of Sri Damodar Mohapatra.
2. **Category:** As per the EIA Notification 2006 and its subsequent amendment, proposed project falls in category B1 under Schedule of item 1(a)-Mining of Minerals.
3. The lease area of Paika Sand Bed over an area of 12.65 acres (5.12 ha.) is located in Village-Krushnandapur, Tahasil–Tirtol, in district Jagatsinghpur of Odisha. Sri Damodar Mohapatra is selected as successful bidder of the Sand Bed for a lease period of 5 (five) years from 2020-21 to 2024-25.
4. Letter of Intent has been issued by Tahasildar, Tirtol to Damodar Mohapatra vide letter no.472 dated 24.02.2021 for a period of five years.
5. The Mining plan has been approved for a period of five years i.e. 2020-21 to 2024-25 by The Deputy Director of Geology, Bhubaneswar. Vide letter no – 7958 DG, on dated 04.12.2020 in favour of Tahsildar, Tirtol. After approval the said lease has granted to Sri Damodar Mohapatra on 30.11.2020.
6. The District Survey Report for River Sand in respect of Jagatsinghpur district has been prepared in accordance with Appendix – x, Para – 7 (iii) (a) of S.O. No – 3611(E) dated 25.07.2018 of MoEF & CC, New Delhi and approved by Collector, Jagatsinghpur on dated 28.01.2020.
7. **TOR Details**: Terms of Reference (TOR) was granted by SEIAA, Odisha vide letter no 1503 dated 17.06.2021.
8. **Public hearing details**: The public hearing in respect of Environmental Impact Assessment for Krushnandapur Paika Nadi Sand Sairat of Sri Damodar Mohapatra over an area of 5.12Ha. under Tirtol Tahasil in Jagatsinghpur district, Odisha was conducted on 27.04.2022 at 10.30 A.M at Paikakula playground of Krushnanadpur village in Jagatsinghpur District. Issues raised during Public hearing are employment generation, development of road, provision towards repair and maintenance of village tube wells in Krushnanandapur Village, provision of assistance to Krushnanandapur Primary School, pollution control measures including operation of water sprinkling system and plantation. Total expenses to be incurred for the action plan towards public hearing issues is Rs.7 lakhs.
9. **Location and connectivity:** The said lease is located in survey of India Topo Sheet No. 73 L/7 (F45U/3), bounded by Latitude: 21°21'49.70" to 21°21'57.00" N, Longitude: 86°15'24.10" to 86°15'34.70" E bearing Khata no 1743 and plot no 72/4147. The area over 5.12 ha is a non-forest Govt. land of Nadi kissam, having ground elevation of 29 mRL. Lease area is accessible from Krushnandapur village at 0.50 km, which is well connected to Main roads and Highways. The nearest major railway

station is Jhankadsarala Road at distance 6km from the lease area. Nearest National Highway is NH – 16 at a distance of 47 Km. Nearest road bridge and river embankment is 600 m and 450 m respectively.

10. There are no National parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant reserves (existing as well as proposed) present within 10 km of the applied mine lease area.

11. Topography and drainage: The sand bed is on the River Mahanadi. The Krushnandpur Paika Nadi Sand Sairat deposit represents a gently sloping to almost flat terrain with highest altitude of 29 mRL. The general slope is towards east. Vegetation is scanty with small bushes existing in the auction hold area. There is no human settlement within the area. The drainage of the district is mainly controlled by rivers like Mahanadi, Devi, Biluakhai & Paika. During rainy season the river water carries sand which is formed due to disintegration of rock bodies along with other suspensions. After recession of the water flow the sand gets deposited in the locations where there is less energy. The river Mahanadi flowing from west to east and forming the northern boundary of the district forms the main drainage system in the district. Besides the river Devi, a tributary to Kathajori and flowing north-northwest to south-southeast with a meandering course also forms a drainage system in the district.

12. **Baseline study**: The baseline information on micro-meteorological data, ambient air quality, water quality, noise levels and soil quality have been generated for the period of October to December 2021.

PERIOD	**October to December 2021**	**Applicable Standards**
AAQ PARAMETERS AT 7 LOCATIONS	PM2.5 – 18.9 to 33.6 µg/cu.m	60 µg/cu.m
	PM10 – 37.8 to 67.3 µg/cu.m	100 µg/cu.m
	SO2 – 5.7 to 10.8 µg/cu.m	80 µg/cu.m
	NOx – 11.8 to 26.3 µg/cu.m	80 µg/cu.m
Ground water Quality at 6 Location	pH – 6.8 to 7.5	6.5 to 8.5
	Total Hardness – 80 to 92 mg/l	600 mg/l
	Chloride - 6 to 12 mg/l	250 mg/l
	Fluorides – 0.18 to 0.20 mg/l	1.5 mg/l
	TDS – 160 to 190 mg/l	1000 mg/l
	Heavy metals (Cd <0.001, As <0.01, Hg<0.0001) mg/l	Heavy metals (Cd <0.003, As <0.01, Hg<0.001) mg/l
Surface water at 4 locations	pH – 7.1 to 7.4	
	Dissolved Oxygen – 5.9 to 6.5 mg/l	
	Biochemical Oxygen Demand – 1.5 to 2.8 mg/l	
	Chemical Oxygen demand – 8 to 20 mg/l	
Noise at 7 locations	Day (dBA Leq) 42.3 to 52.3	55
	Night (dBA Leq) - 29.8 to 43.1	45
Soil Quality at 4 locations	pH – 6.95 to 7.3, Potassium – 64.5 to 94.1 Kg/ Ha, Phosphorous – 50 to 60.9 mg/ kg, Organic Carbon % - 0.28 to 0.39, Electrical Conductivity- 55 to 75 ms/Cm	

13. **Replenishment study**: Replenishment study for pre & post monsoon period on December '2020 and May' 2021 using volumetric method as per Enforcement and Monitoring Guidelines for Sand

(Mining, 2020). The Geological Reserve of the Area is 43552 cum and Mineable Reserve of the Area is 33420 cum. Annual Production as per Mining Plan is 15360 cum. Sections considered is 10m x 10m (3 nos CS and 1 no LS). Elevation in Pre monsoon is 16mRL and Elevation in Post monsoon is 17mRL.. Annual rate of Replenishment – **32760cum**.

14. **Total production and reserves**: The lessee is going to work within the said area for 5 year from 2020-21 to 2024-25 with a maximum production of 15,360 cum per annum with a total production of 76,800 cum during plan period. As estimated, the geological reserve is 43,552 cum and Mineable Reserve is 33,420 cum.
15. **Mining method**: The method of excavation of sand from Krushnandapur 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. In this deposit, the mining is done by dry-pit method i.e., Sand will be excavated within the active channel on dry intermittent or ephemeral stream beds. The excavator is used for removal of sand from the pits. The sands are extracted, loaded, and transferred from pits to the users through trucks and tractors.
16. **Water requirement**: Total water requirement will be approx, 5 KLD for different purposes like domestic, dust suppression, plantation purposes. The water will be sourced by the lessee by tanker.
17. **Traffic study**: The V/C ratio on the Paika road connecting the Syphone Bridge which is connect to Tarapur Road is 0.240. However, with the commencement of mining activity maximum 8 no. of trucks/tractor will carry sand from the lease area and 4 cycles for transportation of employees which will have additional PCU load of 11.4 per hour. So, with the additional PCU load due to mining operation the V/C ratio will remain as 0.249 with LoS B.
18. **Greenbelt**: It is proposed for planting 250 saplings of suitable species per annum by the lessee in vicinity of the riverbank as avenue plantation which will be undertaken in consultation with the concerned authority. There is the proposal for development of green belt towards both sides of the riverbank. The riverbank plantation will be carried out in the 1st year of mining operation.
19. **Manpower requirement**: 25 Nos. (Out of which 2 nos. are skilled, 4 nos. are semi-skilled and 15nos are unskilled) of persons are required as manpower for the proposed project.
20. **Project cost**: Estimated cost of the project is 80 lakhs. Budget for EMP cost is 3 lakhs.
21. **Environment Consultant**: The Environment consultant **M/s Kalyani Laboratories Pvt Ltd (KLPL), Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee on dtd. 24.04.2023.
22. The SEAC in its meeting held on dated **24.04.2023** decided to take the decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
a)	How it has been concluded that the depth of sand deposit is 1 meter?	Depth of sand deposit has been taken 1m from the water course within the lease area was concluded from Replenishment study Report.	-
b)	Exact length of the bridge.	Exact length of the bridge is 610 m from the lease area which is situated up stream side of the bridge.	-

(c)	Revised Replenishment Study Report using Drone method covering details of RL, cross sections taken, grid position etc.	Revised Replenishment study Report using Drone method for post monsoon is submitted herewith for your kind consideration.	The PP has stated in Replenishment Study Report that the quarry is not operational till now due to non grant of Environmental Clearance, hence it is studied that 21,120 m3 extractable mineable reserve is available and has been calculated by considering 60% of mineable reserve as per the MOEF notification dated 25.07.2018, from the annual replenishment during the year 2022-23 and is sufficient for the production capacity of 15,360 m3/ annum

2. **Whether SEAC recommended the proposal** – The proposal was placed in the SEAC meeting held on 12.07.2023 and The SEAC observed the following: -
   a) Replenishment study Report is not satisfactory. For Pre-Monsoon and Post Monsoon study different methods (Volumetric and drone respectively) are used which are not comparable. Actual replenished volume is also not calculated.
   b) In Replenishment study Report for pre & post monsoon period on December 2020 and May'2021" was carried out but the both the time periods as mentioned come under post-monsoon category.

After detailed discussion, the SEAC decided that PP shall submit revised replenishment study to consider the proposal.

Decision of Authority: Approved

The Authority observed that the ARRS report is not done as the MoEF & CC guideline as PP has submitted the Pre-Monsoon and Post Monsoon study report in different methods (Volumetric and drone respectively). Hence, replenishment study report is rejected. After detailed deliberation in the matter, the Authority decided to grant EC with usual stipulated conditions as applicable for sand quarry:

- Maximum depth of mining 0.5 meter and maximum quantity of extraction shall be limited to **15360 cum** in 1st year and **3840 cum** in 2nd year on adhoc basis. PP shall submit Annual rate of replenishment study (ARRS) report through ORSAC empanel agency by **December 2025.**
- The validity of EC is for 1st year and 2nd year or validity of DSR or validity of lease period whichever is earlier.
- The Grant of EC for further period will be considered after submission of approved DSR by SEIAA as per the MoEF& CC, Govt. of India Notification S.O. 3611(E) dated 25.07.2018, Sustainable sand mining guidelines-2016 and Enforcement & Monitoring Guideline for sand mining-2020 and also as per the Hon'ble Supreme Court order vide its order dated 10.11.2021 in Civil Appeal Nos. 3661-3662 of 2020 (State of Bihar Vrs. Pawan Kumar and Others).
- The Project proponent shall follow Enforcement & Monitoring Guideline for sand mining-2020 before and during operation of quarry.
- The Project Proponent (lease holder) shall deposit Rs.3,00,000/-, with the respective District Environment Society for raising 600 plants (minimum @100 trees per Ha) of native species within 2 years in a suitable location adjoining to quarry.

- The PP will implement the EMP with a budgetary allocation of Rs3.0 Lakh as proposed during the valid lease period of 5 years.
- The PP shall comply to the issues raised during public hearing. The PP will spend Rs. 7.0 Lakhs/annum as proposed towards addressing public hearing issues.

APPROVED BY

Member Secretary, SEIAA **Member, SEIAA** **Chairman, SEIAA**