

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE, ODISHA HELD ON 06TH NOVEMBER, 2024**

The SEAC met on 06th November 2024 at 10:30 AM in the Conference Hall of Odisha State Pollution Control Board, Bhubaneswar under the Chairmanship of Sri Sashi Paul. The following members were present in the meeting.

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|------------------------------|---|-----------------------|
| 1. Sri Sashi Paul | - | Chairman (through VC) |
| 2. Dr. K. Murugesan | - | Member Secretary |
| 3. Prof. (Dr.) H.B. Sahu | - | Member (through VC) |
| 4. Prof. (Dr.) Abanti Sahoo | - | Member (through VC) |
| 5. Er. Fakir Mohan Panigrahi | - | Member |
| 6. Prof. (Dr.) B.K. Satpathy | - | Member |
| 7. Shri Jayant Kumar Das | - | Member |
| 8. Dr. Ashok Kumar Sahu | - | Member |
| 9. Dr. K. C. S Panigrahi | - | Member (through VC) |

The compliances furnished by the proponents were verified by the members through e-mail and also proceedings of the meeting were confirmed by the members through e-mail. The decision of the committee on case-to-case basis as follows:

ITEM NO - 01

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR DEVELOPMENT OF PRIVATE HOUSING PROJECT 2.191 ACRES OF LAND AT PLOT NO.: 336/2120, 336/3046, 336/3035, 336/2764, 336, 336/3221, 334/2272 KHATA NO- 703/362, 703/1499, 703/1496, 703/1222, 703/2256, 703/1720, 703/559, OVER AN BUILT-UP AREA – 47957.9 SQ.M NEAR NH-16 ROAD, AT-PATRAPADA, BHUBANESWAR, DIST – KHORDHA FOR M/S. UTKAL BUILDERS LTD OF SRI RAKESH BHURA – MOD EC

1. The proposal is for Modification of Environmental Clearance of M/s. Utkal Builders Ltd. for Development of Private Housing Project 2.191 Acres of land at Plot No.: 336/2120, 336/3046, 336/3035, 336/2764, 336, 336/3221, 334/2272 Khata No- 703/362, 703/1499, 703/1496, 703/1222, 703/2256, 703/1720, 703/559, over a built-up area – 47957.9 SQ.M Near NH-16 Road, at-Patrapada, Bhubaneswar, Dist – Khordha of Sri Rakesh Bhura.
2. Environmental Clearance from SEIAA vide letter no. 1739/SEIAA, dated 16.07.2021 of total built up area is 33,621.35 sqm and total nos. of floor is 17 nos. in Residential Block & 4 Nos. in Commercial Block, but due to height restriction from Airport Authority of India we have reduce the 5 nos. of floor in Residential Block & increased the 8 Nos. of Floor in Commercial Block (Convenient Store) & revised the built-up area i.e. 47,957.94 sqm.
3. **Location and Connectivity** - The proposed site is located at Patrapada, Bhubaneswar, Odisha. The Geographical co-ordinate of the project site is: Latitude -20° 14' 44.81" N & Longitude - 85° 46' 32.78" E. The project site is well connected with National Highway-16 (Jharpokharia-Chennai Road). The nearest railway station is Bhubaneswar Railway station at a distance of approx 10.6 Km in South West direction. The nearest airport is Biju Pattnaik Airport Bhubaneswar at a distance of approx. 13.4 Km in South-West direction from project site. The site is located adjacent to the local landmarks, Haridaspur Mosque, Jagannath

Temple, Pahala Etc. There is no structure or encroachments on the site. The site is easily accessible from NH-05 Road.

4. **Meteorology:** The maximum temperature is about 36.0° C and the minimum temperature is 16.0° C felt in the area. The average annual rainfall in the area is 1326.16 mm.

5. **Building Details of The Project:**

| | | |
|--------------------------|---|---------------|
| Total Plot Area | : | 8,866.66 sqm |
| Kisam of Land | : | Gharabari |
| Residential Builtup Area | : | 33,350.98 sqm |
| Commercial Builtup Area | : | 14,606.96 sqm |
| Total Builtup Area | : | 47,957.94 sqm |
| Total FAR Area | : | 36,535.71 sqm |
| Ground Coverage | : | 3,015.00 sqm |
| Road & Paved Area | : | 2,483.00 sqm |
| Green Belt Area | : | 1,793.52 sqm |
| Total Parking Area | : | 11,922.22 sqm |
| Height of the Building | : | 42.00 m |

6. **Water requirement:** Fresh make up of 104.0 m³/day will be required for the project which will be sourced from Ground water. Waste water of 132.1 KLD will be treated in a STP of 150 KLD capacity, which includes primary, secondary and tertiary treatment. After treatment the treated water will be discharge to the Near Drain.

7. **Power requirement:** The daily power requirement for the proposed building is preliminarily assessed as 1376 KW. In order to meet emergency power requirements during the grid failure, there is provision of 2 nos. of DG set having 320 KVA capacities for power back up in the proposed Building Project.

For energy conservation, there will be 33 nos. of Solar Lighting poles (@72 Watt) has been proposed for Street & common area solar lighting, so

Energy conservation by using Solar Street Lighting = 33 x 72 = 2376 watt = 2.4 KW

Energy conservation by using Solar lighting for common area = 151.8 KW

Total Energy Conservation = (151.8+2.4) KW = 154.2 KW

Total Energy saving = 154.2/1376 = 0.1120 x 100 = 11.2 %

8. **Rain Water Harvesting:** Rain Water will be harvested through 6 nos. of recharging pits.

9. **Firefighting Installations:** Firefighting system will be installed as per recommendation of the Firefighting Officer, Odisha and as per the guideline of NBC (part-4).

10. **Green Belt Development:** Green belt will be developed over an area of 1,793.52 sqm which is 20.23 % of the plot area; by using the local species like Neem, Karang, Golden Champa, Bakul, Bela, Bottle Palm, Cheekoo, Guava etc.

11. **Solid Waste Management:** 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 476.1 kg/day. The generated solid waste from the residential complex will be segregated as biodegradable and non-biodegradable. This will be collected in separate coloured bins. Proper waste management practices will be adopted during the collection, storing and disposal of the generated solid waste. Waste generated from Commercial people will be @ 0.15 kg/capita/day, which will be about 45.0 kg/day

Solid waste from sweeping and Dry Garbage containing non-biodegradable wastes like polythene bags, metal, ceramic Waste, glass etc. shall be stored in separate garbage bin and send to approved recyclers. Around 66.0 kg/day of STP sludge will be generated.

Solid Waste from Residential Population - 476.1 kg/day

Solid Waste from Commercial Population- 45.0 kg/day

STP Sludge - 66.0 kg/day

Total Solid Waste Generation - 587.1 kg/day

12. The Estimated Project cost is ` 40 Crores and Environment Management Cost is ` 220 Lakhs
13. The project proponent along with the consultant M/s Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar made a detailed presentation on the proposal on 03.08.2022.
14. The SEAC in its meeting held on 03.08.2022 decided to take decision on the proposal after receipt of the following information / documents from the proponent followed by site visit of Sub-Committee of SEAC.
 - i) Structural Stability certificate from appropriate authority as per BDA guidelines be submitted and also for revise plan also with corresponding studies made for both approved original plan and revised approved plan.
 - ii) Certificate from chartered civil engineer how much construction has been made for both approved original plan and revised approved plan.
 - iii) Comparative statement in terms of physical features in original plan and present plan.
 - iv) Compliance Report to Previous EC conditions duly certified by Regional Officer of MoEF & CC.
 - v) Permission from Water Resources deptt. For usage of ground water in commercial complex.
 - vi) Approval from Fire Safety Dept. for 6m fire tender corridor for high rise building of 40m height.
 - vii) As per BDA norms, is ground coverage for the project is 35% of total area?
 - viii) Justification as to why this will not be treated as a violation case.
 - ix) Impact and effect of change in ground coverage with reference to the original approved plan and the revised plan.
15. The project proponent was requested vide letter no. 765(10)/ SEAC – (Misc) - 28, dated 06.09.2022 to submit the information / documents as sought by the SEAC at para 14 above.

16. The proposed site was visited by the sub-committee of SEAC on 14.11.2022. Following are the observations of the sub-committee and proponent needs to submit relevant documents as below:

- i) PP and Consultant were present. It was observed that part construction has been initiated towards the back side of the plot and the permission is for commercial and residents use. The PP explained that the construction was based on earlier EC, but now the commercial part has been reduced to cater only the residents and accordingly the plan was modified. No construction was initiated at the front side where modification was sought. However, an undertaking that the Commercial area identified shall be used only for the people who would be residing in the complex may be submitted or the same can be put as a condition of EC.
- ii) Copy of drainage plan approved by BMC with any layout/drawing vetted and NOC needs to be taken before construction including from NHAI if connecting to their drain be a condition of EC.
- iii) Justification as to why the case cannot be considered as a violation case with reference to BDA norm.
- iv) All documents or information as asked by Committee during presentation
- v) The Sub-committee recommend for EC subject to above conditions and submission of documents /compliances as asked by the committee during presentation.

17. The SEAC in its meeting held on dated 13-01-2023 decided to take decision on the proposal after receipt of information / documents as requested vide letter no. 765(10)/SEAC – (Misc) - 28, dated 06.09.2022 and as sought by the Sub-Committee of SEAC at para 16 above.

18. 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 |
|---------|---|--|
| 1. | Structural Stability certificate from appropriate authority as per BDA guidelines be submitted and also for revise plan also with corresponding studies made for both approved original plan and revised approved plan. | Structural Stability of the building is vetted by Adroit Consultants, Kolkata. Structural Stability Certificate is attached in Annexure-1. |
| 2. | Certificate from chartered civil engineer how much construction has been made for both approved original plan and revised approved plan. | We have reduced the commercial part of the building. The construction work is started only residential block which EC was granted earlier. So we have start the construction only residential block. |
| 3. | Comparative statement in terms of physical features in original plan and present plan. | A comparative statement showing physical features in original plan and present plan is attached in Annexure-2. |
| 4. | Compliance Report to Previous EC conditions duly certified by Regional Officer of MoEF & CC. | We have already applied the letter to IRO MoEF&CC for issue certified EC Compliance report of existing EC. We |

| Sl. No. | Information Sought by SEAC | Compliance furnished by the proponent |
|---------|---|---|
| | | will submit the certified compliance report before issue of Environment Clearance. |
| 5. | Permission from Water Resources deptt. For usage of ground water in commercial complex. | The ground water clearance has been Obtained from CGWA vide noc no. CGWA/NOC/INF/ORIG/2021/12997, dated 21.09.2021. CGWA NoC is attached in Annexure-3 . |
| 6. | Approval from Fire Safety Dept. for 6m fire tender corridor for high rise building of 40m height. | Fire Safety recommendation has been obtained from Odisha Fire Services vide letter no. RECOMM1204130012021000174, dated 15.07.2021. Fire NoC is attached in Annexure-4 . |
| 7. | As per BDA norms, is ground coverage for the project is 35% of total area? | As per BDA Norms, the ground coverage of the building is 40% for more than 40 m height of the building. BDA notification is attached in Annexure-5 . |
| 8. | Justification as to why this will not be treated as a violation case. | The construction work is started only residential block which EC was granted earlier. We have reduced the commercial part of the building for which EC application is applied. So we have constructed only residential block which is not changed. |
| 9. | Impact and effect of change in ground coverage with reference to the original approved plan and the revised plan. | <ul style="list-style-type: none"> As the ground coverage is increasing according to the Population, We are also increasing the services like the capacity of STP, DG, UGT etc. Also increasing the parking according to the population As per BDA norms. |
| 1. | PP and Consultant were present. It was observed that part construction has been initiated towards the back side of the plot and the permission is for commercial and residents use. The PP explained that the construction was based on earlier EC, but now the commercial part has been reduced to cater only the residents and accordingly the plan was modified. No construction was initiated at the front side where modification was sought. However, an undertaking that the Commercial area identified shall be used only for the people who would be residing in the complex may be submitted or the same can be put as a condition of EC. | An undertaking is attached in Annexure-6 . |
| 2. | Copy of drainage plan approved by | The drainage plan has been approved |

| Sl. No. | Information Sought by SEAC | Compliance furnished by the proponent |
|---------|--|--|
| | BMC with any layout/drawing vetted and NOC needs to be taken before construction including from NHA if connecting to their drain be a condition of EC. | by Bhubaneswar Development Authority vide letter no. 4584, dated 12.02.2020. Drainage letter is attached in Annexure- 7 and drainage layout is attached in Annexure-8 . |
| 3. | Justification as to why the case cannot be considered as a violation case with reference to BDA norm. | The construction work is started only residential block which EC was granted earlier. We have reduced the commercial part of the building for which EC application is applied. So we have constructed only residential block which is not changed. |
| 4. | All documents or information as asked by Committee during presentation | Attached |

19. The SEAC in its meeting held on dated **02-12-2023** decided to take 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 |
|---------|---|--|----------------------------------|
| | Environmental Clearance dated 16.07.2021 for total built up area is 33,621.35 sqm and total nos. of floor 17 nos. in Residential Block & 4 Nos. in Commercial Block, Now, 5 nos. of floor reduced in Residential Block (so, 12 floors) & increased 8 Nos. of Floor in Commercial Block to 12 floors. Revised the built up area i.e. 47,957.94 sqm. This appears to be a complete violation case as the PP has progressed construction without obtaining the AA clearance (if the cause stated is true) | As there is no change in the Ground Coverage from previous EC and current EC, the construction progress is considered as no deviation. The change in FAR and reduction of commercial units, increase in residential apartments as per modified plan to be implemented once final EC is granted. As such there has been no deviation and structures initiated are also certified by Structural Engineer with supporting documents. Airport Authority Clearance has been obtained. AA clearance is attached in Annexure-1 . | AA clearance is submitted. |
| 2. | All the required statutory clearances obtained were on 2020/2021. Since the building is undergoing MAJOR CHANGES, they need to obtain fresh clearances. | All the fresh clearance has been obtained. | ----- |
| 3. | There are mismatches in the comparative table presented and in the ADS. PP needs to clarify which is correct. | A comparative statement showing physical features in original plan and present plan is attached in Annexure-2 . | Comparative statement submitted. |
| 4. | The residential floors are reduced but the residential population increased by 40% | As there is no change in the Ground Coverage from previous EC and current EC, the construction progress is considered as no deviation. The change in FAR and reduction of commercial units, increase in residential apartments as per modified plan to be implemented once final EC | ----- |

| Sl. No. | Information Sought by SEAC | Compliance furnished by the proponent | Views of SEAC |
|---------|--|--|---|
| | | is granted. | |
| 5. | The STP capacity is revised from 140 to 150 with 40% increase in residents (830 to 1176) is faulty and to be reworked and submitted. | Total Fresh water requirement of the project is 104 KLD, Flushing water requirement is 51.5 KLD. Total waste water generated from the project is 132.1 KLD. So, the Sewage Treatment Plant (STP) capacity is 150.0 KLD which is higher than the waste water generated. | ---- |
| 6. | The structural certificate has no date hence cannot be considered. They need to submit a fresh certificate from a government approved structural engineer or BDA mentioning the floor changes. | Structural Stability of the building is vetted by Adroit Consultants, Kolkata on 08.02.2023. Structural Stability Certificate is attached in Annexure-3 . | Structural Stability Certificate submitted. |
| 7. | Permission from highway authority or appropriate authority before construction to discharge the excess treated water is not complied and violated . This needs to be submitted with present changes. | Drainage permission has been obtained from BMC. Permission letter is attached in Annexure-4 . Permission has been obtained from Highway Authority for construction of drain. NHAI letter is attached in Annexure-5 . | Drainage permission has been obtained from BMC. Permission letter is for only storm water and not for discharge the excess treated water. |
| 8. | Extent of construction by Chartered Civil Engineer is not submitted. Let the PP submit the certificate with regard to the extent of construction from an authorized Architect or Structural Engineer of BDA. | Chartered Civil Engineer certificate is attached in Annexure-6 . | ---- |
| 9. | As there is a drastic increase in commercial units, the PP needs to submit an Affidavit that it will not be used for outside public (if such statement issued is true). | An affidavit is attached in Annexure-7 . | Affidavit submitted. |

Considering the information furnished and the presentation made by the consultant, **M/s Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – A** in addition to the following specific conditions.

- i) The PP shall ensure to combat water logging and temporary flooding in the project premises.
- ii) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.
- iii) The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest drain without which the Proponent will not start construction work. Also, in case of the

connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.

- iv) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.
- v) The proponent shall obtain permission from concerned Fire Safety Authority.
- vi) The commercial block to be used only for the residents of that apartment as mentioned by PP.
- vii) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- viii) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- ix) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
- x) The PP will not commence construction unless the drain lay out is finalized and permission given for the same by the authority to discharge excess treated water & storm water.
- xi) Before starting the construction project physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.
- xii) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

ITEM NO. 02

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S UTKAL REALTORS PVT. LTD. FOR PROPOSED CONSTRUCTION OF PRIVATE HOUSING PROJECT OVER PLOT NO.: 292,293,294,295,296,298,295/687, KHATA NO - 352/237, 352/236, 352/322, 352/238 OVER AN REVISED BUILT-UP AREA 52257.17 SQM AT PAHAL, BHUBANESWAR. DIST- KHURDA OF SRI PRAKASH CHAND BHURA - MOD EC.

1. The proposal is for Modification of Environmental Clearance for Proposed Construction of Private Housing Project over Plot No.: 292,293,294,295,296,298,295/687, Khata No - 352/237, 352/236, 352/322, 352/238 over an revised built up area 52257.17 sqm at Pahal, Bhubaneswar, Dist- Khurda of Sri Prakash Chand Bhura.
2. M/s Utkal Realtors Pvt. Ltd. has awarded for Development of Private Housing Project 2.08 Acres of land at Plot No.: 292,293,294,295,296,298,295/687 Khata No- 352/237, 352/236, 352/322, 352/238, Near NH-16 Road, Pahala, Bhubaneswar, Odisha-751021.
3. The proposed site is located at Pahal, Bhubaneswar, Odisha. The Geographical co-ordinate of the project site is: Latitude - 20° 20' 26.60" N & Longitude - 85° 53' 04.07" E. The project site is well connected with National Highway-16 (Jharpokharia-Chennai Road). The nearest railway station is Bhubaneswar Railway station at a distance of approx. 10.6 Km in South West direction. The nearest airport is Biju Pattnaik International

Airport Bhubaneswar at a distance of approx. 13.4 Km in South-West direction from project site. The site is located adjacent to the local landmarks, Haridaspur Mosque, Jagannath Temple, Pahala Etc. There is no structure or encroachments on the site. The site is easily accessible from NH-16 Road.

4. Building Details of The Project:

| Particular | Area as per EC | Revised | Permissible |
|---|--|--|--------------------------------|
| Project Name | Proposed Housing Project (Residential Use Type) | | |
| Plot Area | 8457.86 sqm | 8457.86 sqm | -- |
| Ground Coverage | 2875 sqm (34 %) | 3313.35 sqm (39.2 %) | -- |
| Total Built up Area | 30990.21 sqm | 58737.31 sqm | -- |
| FAR | 23257.91 sqm (2.74) | 39846.96 sqm (4.711) | 23259.11 sqm (2.75) |
| Maximum Height | 59.45 mtr (Residential) 16.80 mtr (Commercial) | 83.5 mtr (Tower-A) 83.5 mtr (Tower-B&C) | -- |
| Road & Paved Area | 2368.15 sqm | 2368.15 sqm | -- |
| Parking Area | 7709.50 sqm (30 % of Residential FAR Area + 50 % of commercial FAR Area) | 13384.48 sqm | (30 % of Residential FAR Area) |
| Green Belt Area | 1691.50 sqm (20% of Plot area) | 1701 Sqm (20.11% of total plot area). | 1691.50 sqm (20% of Plot area) |
| Power/Electricity Requirement & Sources | 1056 KW | 1682.17 KW Source: TPCODL | -- |
| No. of DG sets | 2 x 500 KVA | 1 x 750 KVA | -- |
| Fresh Water requirement & Sources | 75 KLD Source-Ground Water | 133 KLD Source-Ground Water | -- |
| Sewage Treatment & Disposal | STP Capacity 110 KLD | STP Capacity 180 KLD | -- |
| Estimated Population | 700 nos. | 1428 nos. | -- |

5. REQUIREMENT FOR THE PROJECT:

- **Area requirement:** For this project- 8457.86 sqm (2.08 Acres) of land is required, which has already been acquired.
- **Power requirement:** The daily power requirement for the proposed Private Developer Project is preliminarily assessed as **1682.17 KW** source from TPCODL of Odisha State Electricity Board. In order to meet emergency power requirements during the grid failure, there is provision of 1 no. of DG set having 750 KVA (1 No.) capacities for power back up in the Private Housing Project.
- **Water requirement:** Fresh make up of 133m³/day will be required for the project which will be sourced from Ground Water Source.

6. Solid waste Generation:

| S. No. | Category | Counts (heads) | Waste generated |
|--------|----------|----------------|-----------------|
|--------|----------|----------------|-----------------|

| | | | |
|------------------------------------|---|--------------------|--|
| 1. | Residents | 1428 @ 0.45 kg/day | 642.6 kg/day |
| 3. | Floating population in residents | 140 @ 0.15 kg/day | 21 kg/day |
| 5. | STP sludge(S in Kg=Q*0.01*0.05 Where, Q = Quantity of waste water generated in Ltr) | | 85 kg/day |
| Total Solid Waste Generated | | | 748.6 kg/day Say 749 kg/day |

7. The project proponent along with the consultant M/s Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar made a detailed presentation on the proposal.
8. The project proponent has intimated during presentation that they have not yet started any construction activity for the project including proposal for modification of EC.
9. The SEAC in its meeting held on dated 30-08-2022 decided to take decision on the proposal after receipt of the following information / documents 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 |
|---------|---|--|---------------|
| 1. | Structural Stability certificate from appropriate authority as per BDA guidelines be submitted and also for revise plan also with corresponding studies made for both approved original plan and revised approved plan. | Structural Stability Certificate of the proposed building is attached in Annexure-1 . | complied |
| 2. | Certificate from chartered civil engineer about construction made for both approved original plan and revised approved plan. | Chartered Certificate regarding construction made for both original plan and revised approved plan is attached in Annexure-2 . | complied |
| 3. | Comparative statement in terms of physical features in original plan and present plan. | Comparative Statement regarding physical features in original plan and present plan is attached in Annexure-3 . | Complied |
| 4. | Compliance Report to Previous EC conditions duly certified by Regional Officer of MoEF & CC. | The present proposal is for Amendment of Environment Clearance. No construction work is started at site, once the Amendment EC is received from SEIAA we will submit the Six Monthly EC Compliance report to Regional Office of MoEF&CC and SEIAA. | - |
| 5. | Permission from Water Resources deptt. For usage of ground water in commercial complex. | We have received the Ground Water NoC from CGWA vide NoC no. CGWA/NOC/INF/ORIG/2021/12756. Copy of Ground Water NoC is attached in Annexure-4 . | complied |
| 6. | Approval from Fire Safety Dept. for 6m fire tender corridor for high rise building of 40m height. | Recommendation letter from Fire Safety Department is attached in Annexure-5 . | complied |
| 7. | As per BDA norms, is ground coverage for the project is 35% of total | As per BDA Norms, if building height is more than 40 meters then Ground | complied |

Proceedings of the SEAC meeting held on 06th November, 2024

J. N. J. J.
Environmental Scientist, SEAC

| Sl. No. | Information Sought by SEAC | Compliance furnished by the proponent | Views of SEAC |
|---------|--|--|---|
| | area? | Coverage of the building is 40%. BDA Norms is attached in Annexure-5 . | |
| 8. | Ground coverage of both original approved plan and revised plan approved of the total plot area vis- a - vis the guidelines/ norms | Ground Coverage of the approved plan is 34% and the ground coverage of the revised plan is 39.2%. As per BDA Norms the Ground Coverage of the building is 40%. BDA Norms is attached in Annexure-5 . | Complied |
| 9. | Impact and effect of change in ground coverage with reference to the original approved plan and the revised plan. | <ul style="list-style-type: none"> • As the ground coverage is increasing according to the Population, We are also increasing the services like the capacity of STP, DG, UGT etc. • Also increasing the parking according to the population As per BDA norms. • In previous plan we have provided 12.0m driveway as per previous BDA norms but as per new BDA norm it's reduced to 7.50m. | - |
| 10. | In view of significant changes in approved plan and increase in population from 700 to 1428, the requirements be recast with reference to water, power, parking in terms of space and ECS, waste water discharge, STP and its capacity, rain water harvesting and recharging with back up calculation be revisited and resubmitted including number and capacity of DG sets & basis of it etc. | Comparison sheet of approved plan & revised plan is attached. | complied |
| 11. | Tower wise break up of built-up area of approved original plan and revised plan approved as well. | Tower wise break up of built up area of approved original plan & revised plan is attached. | complied |
| 12. | Distance between the towers as per the original plan approved and revised plan approved against the guidelines/ norms for the same. | The width of open space between the building on a plot shall be the setback specified in rule 32 and 33 for the tallest building subject to a minimum of three meters and the minimum width of internal road shall be 6 meters. | |
| 13. | Fresh traffic study through a reputed Institute or study to be vetted by a reputed Institute in view of significant changes in population and the vehicles thereof at intersecting points with public road/ NH/ SH. | The Traffic Study has been vetted by IIT Bhubaneswar. We have calculated the Traffic volume at higher. Traffic Study Report is attached in Annexure-7 . | complied |
| 14. | Letter from Appropriate authority to take additional load of treated waste water discharge | Bhubaneswar Municipal Corporation (BMC) has vetted the drainage plan. Drainage Vetted letter is attached in Annexure-4 . | BMC has vetted the drainage plan. Drainage Vetted letter submitted nowhere the permission for additional load of treated waste water to be discharge is |

| Sl. No. | Information Sought by SEAC | Compliance furnished by the proponent | Views of SEAC |
|---------|----------------------------|---------------------------------------|---------------|
| | | | mention. |

10. The SEAC in its meeting held on dated **02-12-2023** decided to take decision on the proposal after receipt of the following from the proponent followed by site visit of the Sub-Committee of SEAC.

11. 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) | The built-up area, population etc. are increased almost 2 times, but STP capacity, water requirements are increased by about 60%. Thus, basis with detailed calculations is to be submitted. | Detail comparison statement of earlier proposal & revised proposal is attached in Annexure-1 . | Comparative table statement has been submitted. STP capacity, water requirements are increased by about 60% the basis with detailed calculations has not been submitted. |
| b) | The population with power load increased but, DG Set capacity reduced from 1000 KVA to 750 KVA needs to be explained. | Total power requirement of the project is 1682.17 KW & DG set capacity is 750 KVA. In the earlier proposal the proposed project was Commercial-cum-Residential type. Therefore, we have provided 1000 KVA DG Set. Meanwhile the revised proposal the building is residential type therefore; we have provided 750 KVA DG Set only for common use only. | ---- |
| c) | No permission from authority for discharge of excess treated water taken, which is a non-compliance and reported in the Proceeding. | Drainage permission has been obtained from BMC. Permission letter is attached in Annexure-2 . Permission has been obtained from Highway Authority for construction of drain. NHAI letter is attached in Annexure-3 . | No permission from authority for discharge of excess treated water has been taken. Permission for disposal of storm water is mentioned in the letter. |
| d) | All statutory reports of Traffic, Ground water, AA etc. fresh to be taken as some of them are of 2020 and 2021 and there are major changes. | All the fresh clearance has been obtained. | ---- |

12. The proposed site was visited by the sub-committee of SEAC on **05.07.2024**. Following are the observations of the sub-committee:

a) The PP and Consultant explained the Layout (both original and revised).

- b) The PP had taken EC for 3 towers earlier with 17 floors and now the revised plan is for same 3 towers (all residential) for 22 floors.
- c) The Tower A is constructed up to 2 floors and Tower B up to 3 floors and Tower C not yet started. PP explained the comparative plan and said that the current built up area is within the previous EC conditions.
- d) The PP was advised the following:
 - i) To submit a write up with details of comparative statements of construction (built up area), floors, environmental settings, STP capacity etc for project/each Tower and explain that the current construction started is not violated the EC conditions. Also, submit the date of Mod EC presentation, Date of submitting ADS, Date of starting of Construction for Tower A & B, Date of BDA interim approval for modified plan.
 - ii) The above statements at i) need to be certified by a BDA empanelled Architect.
 - iii) A structural stability certificate and safety of building with regard to foundations considered for revised built up area and height from an institute of repute.
 - iv) Revised statutory clearances if not taken, to be obtained.
 - v) Permission for discharge of excess treated water and storm water from appropriate authority for the revised plan with lay out plan of drain till fall out.
 - vi) All other information asked during presentation, if not complied.
- e) The stack height to be above the building height complying to CPCB norm.

After detailed discussion, the SEAC decided to take the decision on the proposal after receipt of following from the proponent raised during site visit:

- i) A write up with details of comparative statements of construction (built up area), floors, environmental settings, STP capacity etc for project/each Tower and explain that the current construction started is not violated the EC conditions. Also, submit the date of Mod EC presentation, Date of submitting ADS, Date of starting of Construction for Tower A & B, Date of BDA interim approval for modified plan.
- ii) The above statements at i) need to be certified by a BDA empanelled Architect.
- iii) A structural stability certificate and safety of building with regard to foundations considered for revised built up area and height from an institute of repute.
- iv) Revised statutory clearances if not taken, to be obtained.
- v) Permission for discharge of excess treated water and storm water from appropriate authority for the revised plan with lay out plan of drain till fall out.

ITEM NO. 03

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR HATURIPAL SAND QUARRY OVER AN AREA OF 26.50 ACRES OR 10.72 HA IS LOCATED IN VILLAGE HATURIPAL, TAHASIL- TALCHER IN ANGUL DISTRICT BY SRI TOPHAN MOHANTY- EC

1. This proposal is for environmental clearance for Haturipal Sand Quarry over an area of 26.50 acres or 10.72 ha is located in village Haturipal, Tahasil - Talcher in Angul district of Sri Tophan Mohanty.
2. **Category:** The project is categorized in Category-B under item 1(a)-Mining of Minerals in the EIA notification, 2006 and its subsequent amendments.
3. The Mining plan has been approved by The Joint Director of Geology, Zonal survey, Dhenkanal Vide letter no – 668, on dated 01.06.2020 in favour of Tahsildar, Angul.
4. The lease was granted to Mr. Tophan Mohanty being the successful bidder for tenure of 5(Five) years from the date on which this executed deed is registered.
5. **Public hearing details:** The Public Hearing meeting was held in respect of environmental Impact assessment of Hathuripal Brahamni Nadi Sand Quarry on 30.06.2022 at Hathuripal Matha of Talcher Tahsil of Anugul district. Issues raised were Dust suppression and Water Pollution Control, Afforestation Programme, Local employment opportunity, Provision for repair and maintenance of village roads, Strict adherence of sand mining guidelines, Supply of sand to the locals with reasonable price/free of cost, Speed restriction during school timing. The budget earmarked for the action plan is 16.10 lakhs.
6. **TOR details:** Terms of Reference (ToR) Issued by State Impact Assessment Authority (SEIAA) Orissa, Vide Letter. No. SEACSEIAA/OR/MIN/65843/2021 dated 27.12.2021
7. **Location and connectivity:** Hathuripal Sand Quarry ML area 10.72ha. situated at Hathuripal village of Tahasil - Talcher of District-Anugul, Odisha. The lease area under reference featured in the Survey of India Topo sheet no. 73H/5 and is on Khata No. 83, Plot No.100/343, Kissam- Nadi. The geo coordinates of the lease area is 20°53'24.78"N to 20°53' 58.65"N 85°15'19.39"E to 85°15'29.97"E. The area is located 3.0 km from District Headquarters Talcher and 100 Km from State Capital Bhubaneswar. Nearest railway stations is at Talcher railway station at a distance of 4.0Km. The lease area can be approached from NH:53 & NH:149 at a distance of 2 Km. Nearest Airport is Bhubaneswar Airport which is at a distance of 100Km.
8. **Replenishment report:** The replenishment of Sand has been calculated by volumetric survey method. Amount of sand Replenishment within the quarry area is 10368 Cum/annum & proposed production is 14400cum/annum as mentioned in Replenishment Study Report i.e. approx. 72 % replenishment can be done. Therefore, the areas for sand exploitation within the lease area has been divided into two zones, one for First-Third-Fifth years' mining and the other for Second-Fourth years' mining. In the applied lease area replenishment depends upon the rainfall, if adequate amount of sand will not replenish during monsoon, then excavation of sand will be limited to the quantity which will be equivalent to the replenished material up to a depth of 0.3-0.4 mtrs.

9. **Reserves:** As estimated, the proved geological reserve of River Sand is 84640Cu.m and proved mineable reserve is 45430Cu.m. During the plan period, a total of 45000cum (saleable) River Sand will be produced as per the mining plan.
10. **Mining method and production:** Total lease area is 26.50 acres(10.72ha) of non- forest Govt. land of "Nadi" kism and the lessee is going to work within the said area for plan period of five years with a total production of 45000Cu.m of River Sand @ 9000 Cum/annum. Mining shall be done by open cast Manual method and transportation through dumpers and tractors. The mineral extraction will be done for a period of 200 days in a year. The Lessee has a proposal to transport of sand is by Tractors/Dumpers of 8-10 tonnes capacity
11. **Water requirement:** Total water approx, 5 KLD will be required for different purposes like Domestic, Dust suppression, plantation purposes & sourced from facility of Govt. Water Resource.
12. **Power/fuel 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 and for same it is estimate as 1.0 KVA. 0.012KLD diesel is required as fuel.
13. **Baseline study:** Baseline information with respect to Land, Water, Air, Noise, Biological and Socio-economic quality status in the study area were collected by conducting primary sampling / field studies during winter season Dec,20-Feb 2021.

Ambient Air Quality

PM10 ranges within 71.0-39.0 $\mu\text{g}/\text{m}^3$, P 2.5 ranges within 38.0-13.0 $\mu\text{g}/\text{m}^3$, SO₂ ranges within 7.3-4.1 $\mu\text{g}/\text{m}^3$ & NOx ranges within 14.7-8.4 $\mu\text{g}/\text{m}^3$.

The parameters monitored at the project area as per NAAQ standards are found to be within limits. It may be observed that all parameters at all stations are well within the limits prescribed by Central pollution control Board.

Noise Levels

- a) Day time noise levels were varying from 51.40 dB(A) and 40.00 dB(A)
- b) Daytime noise levels varied from 39.2 dB(A) to 30.0 dB(A)

Surface water

- a) The pH value ranges from 6.98 to 7.56 and within the li its (6.5 – 8.5) of IS 2296:1992.
- b) The sulphate content in the collected surface water ran es from 7.4 mg/l to 9.4 mg/l.
- c) The chloride content in the collected surface water sample ranges from 10.7 mg/l to 16.3 mg/l. DO of the collected surface water sample ranges from 6.3mg/l to 7.0 mg/l.
- d) BOD of the collected surface water sample ranges from mg/l to 2.1 mg/l.

Ground water

- a) The ground water results of the study area indicate that the pH range varies between 6.98 and 7.74
- b) The Total Dissolved Solids range is varied between 49 mg/l – 74 mg/l for the ground water.
- c) The chloride content in the ground water for study area ranges between 1.4 mg/l – 2.6 mg/l.
- d) The sulphate content of the ground water of the study area varies between 1.6 mg/l – 2.5 mg/l.

Soil quality analysis

- a) Soil Samples collected from 5 identified locations indicate the soil is Sand Loamy type and the pH value is ranging from 6.21 to 7.11.
- b) Nitrogen content ranged from 0.042 mg/Kg to 0.084 mg/kg and Phosphorous ranged from 0.018 Kg/Ha to 0.034 Kg/Ha.

14. **Greenbelt:** About 7500 saplings of local species will be planted under the green belt (safety zone) and non-mineralized area for five years.

| S. No. | Saplings to be planted | Budget in INR | Species | Place of Plantation |
|--------------|------------------------|-----------------|--|---|
| 1 | 2500 | 90000 | Neem, Peepal, Mango, Shisham, Sirish, Babool, Chakunda | Along the lease approach roads, schools and public buildings in Sirigida village and if any social forestry programme will be provided the contribution |
| 2 | 2500 | 90000 | | |
| 3 | 2500 | 90000 | | |
| 4 | Maintenance | 20000 | | |
| 5 | Maintenance | 20000 | | |
| Total | 7500 | 3,10,000 | | |

15. **Manpower requirement:** Total manpower requirement for the proposed project is 13 nos (For supervisor & statutory person 1 nos of person, skilled labourers (operator & helper) 3 nos of person, semi- skilled labourers 3 nos. & unskilled labourer 6 nos). Indirect manpower requirement is 10 numbers of persons.

16. **Project cost:** The cost of project is 30.0Lakhs. EMP capital cost of the project is 16.10Lakhs(capital) and recurring cost is 6.15Lakhs/Annum.

17. **Environment Consultant:** 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 03.03.2023.

18. The SEAC in its meeting held on 03-03-2023 dated recommended the followings:

A) The proponent may be asked to submit the followings for further processing of EC application;

- a) . Benchmark details and layout of replenishment study.

- b) In Replenishment Study Report, 14400cum/year is the approved capacity mentioned whereas in mining plan 9000cum/year is proposed. Which is correct? This shall be clarified.
- c) Land break-up such as water, rocks & sand area details.
- d) In DSR and Lease Document, Plot No. & Khata No. are mis-matching. This has to be clarified.
- e) Cadastral certificate from Tahasildar showing lease area.
- f) Road connectivity to the site with Map.
- g) Distance from road bridge.
- h) KML file shows the lease area is surrounded by water with small sand deposit, this has to be clarified.
- i) KML file also shows the site is stony area and rocky area, this has to be clarified.

B) The proposed site shall be visited by Sub-Committee of SEAC to verify the followings;

- a) Actual sand deposit in the lease area & water deposit surrounding the lease area as shown in KML file.
- b) Environmental settings of the lease area.
- c) Mining activity, if any carried out in the lease area.
- d) Road connectivity to the lease area.
- e) Distance of the bridge from the boundary of the lease area.
- f) Cluster approach if any.

19. 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 |
|---------|---|---|
| a) | Benchmark details and layout of replenishment study. | Benchmark details with layout updated in the replenishment report. Replenishment report is attached as Annexure-1 . |
| b) | In Replenishment Study Report, 14400cum/year is the approved capacity mentioned whereas in mining plan 9000cum/year is proposed. Which is correct? This shall be clarified. | In the replenishment report the approved capacity mentioned as 14400 cum/year is nothing but 14400 Metric Ton/year (considering the tonnage factor 1.6 i.e. 9000 cum x1.6 = 14400 Ton). In the Mining Plan the annual production is mentioned as 9000 cum/year. So please consider the annual production as 9000 cum. Replenishment report is attached as Annexure-1 . |
| c) | Land break-up such as water, rocks & sand area details. | Map showing the Land use break up details is attached as Annexure – 2 . |
| d) | In DSR and Lease Document, Plot No. & Khata No. are mis-matching. This has to be clarified. | There may be typographical error in DSR. As per the Lease document Khata No. is 83, Plot no is 100/343. |

| Sl. No. | Information Sought by SEAC | Compliance furnished by the proponent |
|---------|--|--|
| e) | Cadastral certificate from Tahasildar showing lease area. | Authenticated cadastral Map showing the lease area is attached as Annexure-3 . |
| f) | Road connectivity to the site with Map. | The Mine connected to NH-149 at Nuagaon through PWD road. Map showing the road connectivity is attached as Annexure-4 . |
| g) | Distance from road bridge. | The distance from mines to nearest bridge is 2.92 km. Map showing the distance from mines to bridge is attached as Annexure-5 . |
| h) | KML file shows the lease are is surrounded by water with small sand deposit, this has to be clarified. | After verification of KML file and further mapping it is to be clarified that the potential mining area is coming 4.50 Ha i.e. 41.97%, water area is coming 2.15 Ha i.e. 20 % and stony area is 3.70 Ha i.e. 34.51%. Considering half the of the sand deposit area i.e. 2.25 Ha out of 4.50 Ha we can achieve the targeted production 9000 Cum/Annum easily. (22500 m ² X 0.4 average thickness of sand = 9000 cum/annum). Google Map showing potential sand deposit area is attached as Annexure-6 |
| i) | KML file also shows the site is stony area and rocky area, this has to be clarified. | After verification of KML file and further mapping it is to be clarified that the potential mining area is coming 4.50 Ha i.e. 41.97%, water area is coming 2.15 Ha i.e. 20 % and stony area is 3.70 Ha i.e. 34.51%. |

20. The SEAC in its meeting held on dated **03-05-2023** decided to take decision on the proposal after receipt of the following from the proponent followed by a site visit of the Sub-Committee of SEAC.

21. 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 |
|---------|--|--|---------------|
| 1. | Compliance of the PP that there may be typographical error in DSR as far as plot no and khata no mismatch is concerned is not acceptable. It needs to be certified by the authorities approving the DSR and necessary corrected copy of DSR duly approved should be submitted. | The said Haturipal Sand Quarry over an area of 10.72 Ha, at Haturipal, Tahasil: Talcher, Dist: Angul, Odisha of Sri Tophan Mohanty is at Khata no-1 and plot no 34. The same is mentioned in the approved revenue map and revised DSR report. (Attached) | submitted |

22. The proposed site was visited by the sub-committee of SEAC on **07.08.2023**. Following are the observations of the sub-committee:

- i) The Additional Tahasildar, Talcher and his associated staff; and the project proponent were present at the site.
- ii) A new bridge across Brahmani River, adjacent to the existing one, is under construction. It was observed that the construction agency has diverted the water channel to the western bank of the river, for the convenience of construction of the bridge; and the sand deposit is currently under water. As a result, it is estimated that some amount of sand must have been washed out due to the high velocity of water flow.
- iii) It was also observed that a part of the lease is rocky terrain.
- iv) It was learnt that another mining lease which is in Dhenkanal district, is in operation adjacent to the current lease. It is estimated that the distance between the two leases is less than 500m. This needs to be verified and if found correct then the project proponent has to apply for EC under cluster approach.
- v) However, if the distance is more than 500m, then the following is recommended:
- vi) In due course, the river channel will be normalized by the bridge construction authority. It is recommended that the project proponent be permitted to mine the replenished amount of sand ascertained after monsoon and after restoration of the water channel by the bridge construction authority.
- vii) It is also recommended that the transport vehicles will be covered with tarpaulin to minimize dust/ sand particle emissions.
- viii) No natural water course shall be obstructed or diverted for the purposes of sand mining.
- ix) The location of the village being close to the quarry, the project proponent shall ensure that the biological clock of the villagers is not disturbed. The floodlights should be oriented away from the villages and the noise levels should be kept within the prescribed limits for day light/night hours.
- x) The project proponent shall take adequate measures for protection of the river bank from soil erosion.

23. The SEAC in its meeting held on dated **18.08.2023** decided to take decision on the proposal after receipt of the following information / documents from the proponent as desired by the Sub-Committee of SEAC during site visit:

| Sl. No. | Information Sought by SEAC | Compliance furnished by the proponent | Views of SEAC |
|---------|--|--|---------------|
| 1. | It was learnt that another mining lease which is in Dhenkanal district, is in operation adjacent to the current lease. It is estimated that the distance between the two leases is less than 500m. This needs to be verified and if found correct then the project proponent has to apply for EC under cluster approach. | The distance between sand quarry in Dhenkanal district and the sand quarry at Hathuripal under Talcher Tahail of Angul district is approximately 600m. The same has been intimated to your good office by DDM, Angul vide its letter dated 19.10.2024. | ----- |

| Sl. No. | Information Sought by SEAC | Compliance furnished by the proponent | Views of SEAC |
|---------|---|---------------------------------------|---------------|
| | Tahasildar may be asked to provide information on this. | | |

Considering the information / documents furnished by the proponent and presentation made by the consultant M/s EHS 360 Labs Private Limited, Chennai, the SEAC recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions as per Annexure – B in addition to the 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 as per Annexure – C.
- ii) Sand extraction shall be limited to quantity and depth as per replenishment study report for only the first year of mining. 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.
- vi) PP shall start mining only after obtaining a certificate from Bridge Construction Authority regarding normalization of water channel with the date of normalization of the channel.
- vii) The transport vehicles will be covered with tarpaulin to minimize dust/ sand particle emissions.
- viii) No natural water course shall be obstructed or diverted for the purposes of sand mining.
- ix) The location of the village being close to the quarry, the project proponent shall ensure that the biological clock of the villagers is not disturbed. The floodlights should be oriented away from the villages and the noise levels should be kept within the prescribed limits for day light/night hours.
- x) The project proponent shall take adequate measures for protection of the river bank from soil erosion.

ITEM NO. 04

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR DARGULA SAND BED CLUSTER I & II, OVER AN AREA OF 6.69 HECTARES IN VILLAGE DARGULA, TAHASIL DABUGAON, DISTRICT NABARANGPUR BY TAHASILDAR DABUGAON (SUBMITTED UNDER CLUSTER APPROACH CONSISTING OF 2 SAND QUARRIES) – EC

1. This proposal is for environmental clearance for Dargula sand bed cluster I & II, over an area of 6.69 Hectares in village Dargula, Tahasil Dabugaon, District Nabarangpur of Tahasildar Dabugaon (submitted under cluster approach with consisting of 2 sand quarries).
2. **Category:** The project is categorized in Category-B-1 of Schedule under item 1(a)-Mining of Minerals in the EIA notification, 2006 and its subsequent amendments.

3. The Mining plan has been approved The Joint Director of Geology, Zonal survey, Koraput. Vide letter no – 1120, on dated 08.06.2020 (Quarry I) and 1141, dated 08.06.2020 (Quarry II)
4. The proposed mining cluster project is the river bed sand mining on Angi River at village Dargula under Tahasil: Dabugaon, Dist: Nabarangpur, Odisha over an area of 6.69 Ha. The cluster constituted of two sand bed namely Dargulla sand quarry I over an area of 2.53 Ha , Dargulla sand quarry II over an area of 4.16 Ha , on Angi river. All the two mines located within 500m radius from each other forming a cluster of sand bed. The lease has been allocated to the successful bidders by Tahasildar Dabugaon.
5. The Dargula sand quarry I have been allocated to Sri K. Paban Raju and Dargula Sand Quarry II has been allocated to Sri B. Jogi Raju.
6. **Public hearing details:** Public hearing was successfully executed on date 20.09.2022 at Gram Panchayat office premises of Jabaguda village under Dabugaon Tahasil in Nabarangpur district as per the guidelines given in EIA Notification 14th Particular September' 2006 and its subsequent amendment. Road repairing and widening of roads and supply of sand on concessional rates to local people were the main issues raised during public hearing and budget allocated for it was Rs. 1,48,000.
7. **TOR details:** TOR has been granted by SEIAA- Odisha prescribed the Reference No: 651/SEIAA dated 26-02-2021.
8. **Location and connectivity:** The proposed river bed sand mining will be carried out on Angi River located at village: Dargula, under Tahasil: Dabugaon, Dist Nabarangpur, Odisha The project site is located in survey of India toposheet no-(65I/7). Dargula Sand Quarry I falls between latitude of 19°26'09.73"N to 19°26'18.09"N and longitudes of 82°20'23.12"E to 82°20'34.50"E and Dargula Sand quarry II falls between latitude of 19°26'13.93"N to 19°26'29.44"N and longitudes of 82°20'34.91"E to 82°20'45.80"E. Nearest Railway station is Kotpar Railway Station at a distance of 44.02 Km from the project site. The nearest road is a village road located at a distance of 100m. The site is well connected to NH-201 & SH-39 at a distance of 21.09 Km & 6.7 Km respectively. Nearest airport is Jharsuguda Airport located at a distance of 326Km from the mining Lease Cluster.
9. **Topography and drainage:** Topography of the area is a flat terrain which lies at an elevation of more than 2m from the level of flow of water. The gradient of flow of water in the river is gentle. So, in the lease area, the highest elevation is 115mRL & lowest elevation is 113mRL in sand. Drainage system in the region is dendritic. General flow direction of river is from North to South. Work will continue only during summer months when there is no water in the leasehold. Mining will be restricted to a depth above the ground water level.
10. **Replenishment report:** The estimated average erosion thickness is computed within the entire lease area and common safe workable area respectively. However, the volume of sand available in Dargula-I sand quarry after post monsoon study is around 6465.3 m³, which can be treated as safe extractable within the framework of the study after arrival of river level. As it is a new mine no excavation has done in this year. So, total minable reserve available for mining is 36825.3 m³ whereas, approved production capacity for the year is 6072 m³. The volume of sand available in Dargula-II sand quarry after post

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Environmental Scientist, SEAC

monsoon study is around 12814.68 m³, which can be treated as safe extractable within the framework of the study after arrival of river level. So, total minable reserve available for mining in Dargula-II is 46244.68 m³ whereas, approved production capacity for the year is 6670 m³.

11. **Reserves:** Geological reserves and mineable reserves of Dargula Sand Quarry I is 62301.96 cum and 31463.64cum respectively and for Dargula Sand Quarry II is 77265 cum (geological reserve) and 33430 cum (mineable reserve). Total production of the proposed project is given below in the following table.

| Sl. No. | Year | Dargula -I Production in m ³ | Dargula II Production in m ³ | Total Production in m ³ (Cluster) |
|---------|------|---|---|--|
| a) | 1st | 6072 | 6670 | 12742 |
| b) | 2nd | 6072 | 6670 | 12742 |
| c) | 3rd | 6072 | 6670 | 12742 |
| d) | 4th | 6072 | 6670 | 12742 |
| e) | 5th | 6072 | 6670 | 12742 |
| Total | | 30360 | 33350 | 66710 |

12. **Mining method:** The method of excavation of sand from Dargula Sand Quarry – I & II will be by manual method. The mode of the deposits, geomorphology of the area and its hydrological condition are some of the factors that favor the open cast method of mining. 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. The mining is done on single shift basis. The local manpower has been engaged in the mine. Benching will not feasible in case of sand mining as the maximum depth of mining will be only 1 m.

13. **Water requirement:** the water requirement for workers for the Dargula I, 7.0 KLD of water will be required and 8.0 KLD of water will be required for Dargula II. Total water requirement for the cluster will be 15.00 KLD. This water will be supplied from the nearby area.

| Activity | Calculation | Round off Figure in KLD |
|------------------|---|-------------------------|
| Drinking | @ 10 lpcd per labor 10*21/1000= 0.21 KLD | 0.21 |
| Dust Suppression | Total approach road to be water sprinkled = 1540 m 1540 m*6m*0.5 *2 times/1000= 9.24 KLD | 9.24 |
| Plantation | 2610 plant (during plan period) @ 2 L/per plant= 2610*2lts= 5220/1000= 5.22 KLD | 5.22 |
| Total | | 14.67 ~ 15.0 |

14. **Baseline study:** Baseline study was conducted for period of 3 months (October'21 to December'21).

- a) Ambient Air Quality Monitoring reveals that the minimum & maximum concentrations of PM₁₀ for all the 7 AQ monitoring stations were found to be 58.7 µg/m³ at AQ3 and 89.34 µg/m³ at AQ1, respectively. Ambient Air Quality Monitoring reveals that the minimum & maximum concentrations of PM_{2.5} for all the 7 AQ monitoring stations were found to be 23.21 µg/m³ at AQ3 and 56.21 µg/m³ at AQ1, respectively. As far as the gaseous pollutants SO₂ and NO_x are concerned, the prescribed CPCB limit of 80µg/m³ for residential and rural areas has never surpassed at any station. The minimum & maximum concentrations of SO₂ were found to be 3.24 µg/m³ at AQ2 & 17.21 µg/m³ at AQ1, respectively. The minimum & maximum concentrations of NO_x were found to be 9.83 µg/m³ at AQ3 & 25.10 µg/m³ at AQ1, respectively.
- b) Analysis results of ground water during study period reveal pH varies from 7.19 at GW4 to 7.73 at GW6; total hardness varies from 280.34 mg/l at GW4 to 329.4mg/l at GW3 ;total dissolved solids vary from 846 mg/l at GW4 to 1238 mg/l at GW6.
- c) Surface water analysis results indicate that the pH ranges between 7.32 and 7.72. Dissolved Oxygen (DO) was observed in the range of 6.8 to 7.4 mg/l against the minimum requirement of 4 mg/l. BOD values were observed to be in the range of 3.62 – 4.3 mg/l. The chlorides and Sulphates were found to be in the range. Bacteriological examination of surface water samples revealed the presence of total coliform in range of 1.8×10³MPN/100 ml to 2.0×10³. MPN/100 ml.
- d) Noise monitoring reveals that the maximum & minimum noise levels at daytime were recorded as 59.4 Leq. dB (A) at NQ3 & 50.6 dB (A) at NQ5, respectively. The maximum & minimum noise levels at night-time were found to be 48.2 dB (A) at NQ3 & 38.8 dB (A) at NQ5.
- e) Samples collected from identified locations indicate the soil is sandy type and the pH value ranging from 7.25 to 8.02, which shows that the soil is alkaline in nature. Potassium is found to be from 234.20mg/kg to 253.56mg/kg. The water holding capacity is found in between 26.94 % to 32.09%.
15. **Greenbelt:** Plantation will be done with suitable local species like Teak, Mango, Neem, Jammun, Jhaun etc after consultation with the local authorities. A time bound progressive schedule for greenbelt is given in the following table. Total 2610nos. of saplings will be planted from the cluster during plan period.

| Dargula Sand Quarry - I | | | | | |
|-------------------------|--------------------------------------|---------|---|--|---------------------------------------|
| Year | Safety Plantation Area/No. of plants | Zone of | No of plants along both side of approach road | Location | Species |
| 1 st | 0.480/480 | | 740 | Approach road – 740 nos – along both sides 0.74 km of approach road at spacing of 2 m. | Guava, mango, Jammun, jhaun, neem etc |
| 2 nd | Maintenance | | Maintenance | | |
| 3 rd | | | | | |
| 4 th | | | | | |
| 5 th | | | | | |
| Total | 480 | | 740 | | |
| Total | 1220 | | | | |

| Dargula Sand Quarry - II | | | | | |
|--------------------------|--|---|---|---|---|
| Year | Safety Zone Plantation Area/No. of plants | No of plants along both side of approach road | No. of plants in buffer zone consulting local authorities | Location | Species |
| 1 st | 0.491/490 | 800 | 100 | Approach road – 800 nos – along both sides 0.80 km of approach road at spacing of 2 m. Village area – 100 nos. In village area like school premises, Aangawadi, Panchayat bhavan | Guava, mango, Jammun, jhaun, neem etc. |
| 2 nd | Maintenance | Maintenance | Maintenance | | |
| 3 rd | | | | | |
| 4 th | | | | | |
| 5 th | | | | | |
| Total | 490 | 800 | 100 | | |
| Total | 1390 | | | | |

16. **Manpower requirement:** Total manpower requirement of Dargula sand quarries is 21 nos. (i.e. Dargula sand quarry I is 10nos. and Dargula sand quarry II is 11nos.).
17. **Project cost:** The estimated cost of project is around Rs. 60 lakhs. CER budget proposed for this project is 1,20,000/- and for EMP a budget of Rs.830000 has been allocated as capital cost and Rs. 270000 as recurring cost.

Dargula Sand Quarry– I & II (For Cluster) Budget for environmental protection

| Sl. No. | Measures | Capital Cost (In Rs.) | Recurring Cost (In Rs.) |
|--------------|---|-----------------------|--------------------------------------|
| 1. | Pollution Control Dust Suppression /Water Sprinkling | -- | 50,000 |
| 2. | Pollution Monitoring i) Air pollution ii) Water pollution iii) Soil Pollution iv) Noise Pollution | -- | 50,000 40,000 10,000 10,000 |
| 3. | Green belt development | 5,22,000 | 50,000 |
| 4. | Maintenance of haul road | 3,08,000 | 60,000 |
| Total | | 8,30,000 | 2,70,000 |

18. **Environment Consultant:** The Environment consultant M/s P and M Solution, Noida along with the proponent made a presentation on the proposal before the Committee on 03.03.2023.
19. The SEAC in its meeting held on dated 03-03-2023 recommended the following;

A) The proponent may be asked to submit the followings for further processing of EC application;

- a) Exclude concave portions (area prone to erosion) from the mining zone.
- b) Revisit and submit replenishment study.
- c) The exact distance of the nearest bridge from proposed quarry.
- d) Certificate from concerned DFO for absence of Schedule – I species and the flora and fauna of the region.

B) The proposed site shall be visited by Sub-Committee of SEAC to verify the followings;

- i) Actual sand deposit in the lease area as shown in KML file.
- ii) Environmental settings of the lease area.
- iii) Mining activity, if any carried out in the lease area.
- iv) Road connectivity to the lease area.
- v) Distance of the bridge from the boundary of the lease area.
- vi) Cluster approach if any.
- vii) Distance of embankment from sand deposit.

20. The project proponent has not replied to ADS raised by SEAC. Regarding the site visit, the SEAC opined that proposed area is far and possibility for visit to the place by SEAC Members is not possible.

21. The SEAC in its meeting held on dated 11-09-2023 decided to take decision on the proposal after receipt of the following from the proponent.

- i) Video showing the cluster lease area with geo coordinates, transportation road of the cluster, Mine area of all quarries present in cluster and previous mining activity.
- ii) Fresh KML file.

22. 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 |
|---------|---|---------------------------------------|--|
| 1. | Video showing the cluster lease area with geo coordinates, transportation road of the cluster, Mine area of all quarries present in cluster and previous mining activity. | Not submitted | Old compliance report has been resubmitted by PP |
| 2. | Fresh KML file. | Not submitted | ---- |

23. The SEAC in its meeting held on dated 25-07-2024 decided to take 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 |
|---------|----------------------------|---------------------------------------|---------------|
|---------|----------------------------|---------------------------------------|---------------|

| Sl. No. | Information Sought by SEAC | Compliance furnished by the proponent | Views of SEAC |
|---------|--|---|--|
| 1. | Video showing the cluster lease area with geo coordinates, transportation road of the cluster, Mine area of all quarries present in cluster and previous mining activity. | A video illustrating the cluster lease area, including geo-coordinates, transportation routes and the mine areas of all quarries within the cluster, has been prepared and sent to seac.odisha2019@gmail.com. A map of the transportation routes is attached as Annexure-I. Both quarries are newly identified sources and no prior Environmental Clearance (EC) has been obtained. Furthermore, no lease has been granted for these quarries due to the absence of EC. | Video submitted |
| 2. | Fresh KML file. | A fresh KML file has been forwarded to seac.odisha2019@gamil.com. | KML file submitted. |
| 3. | It seems from replenishment report that the concave portion of the Daragula Sand Bed-I has not been taken into account while calculating the safe working zone. This has to be taken into consideration. | The safe working zone has been recalculated, with the concave portion and the necessary safety zone taken into account. This has been detailed in the Replenishment study Report attached as Annexure-II. | Only calculation part for concave portion of the Daragula Sand Bed-I has been submitted. |

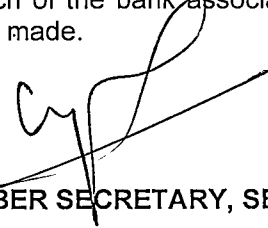
Considering the information / documents furnished by the proponent and presentation made by the consultant M/s P and M Solution, Noida, on behalf of the proponent, the SEAC approved the EIA/EMP report in cluster approach and recommended the following:

- a) The SEIAA, Odisha may consider to grant Environmental Clearance to individual lease for Dargula sand bed cluster I & II (under cluster approach) without referring to SEAC with stipulated conditions as per Annexure – B after receipt of individual applications from the lessee in cluster along with following documents.
 - i) Filled in form-I of individual lease
 - ii) Prefeasibility report of individual lease
 - iii) EMP of individual lease.
 - iv) Approved Mining Plan of individual lease.
 - v) Previous production details of individual lease duly certified by Tahasildar.
 - vi) Replenishment Study Report of individual lease.

b) Following specific conditions may be stipulated in individual Environmental Clearance.

- a) 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 as per Annexure – C.
- b) Sand extraction shall be limited to quantity and depth as per replenishment study report for only the first year of mining. Regular replenishment study as per guidelines to be conducted and report to be submitted.
- c) Provision of Bio-toilet shall be made at the site.

- d) 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.
- e) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.



MEMBER SECRETARY, SEAC

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR DEVELOPMENT OF PRIVATE HOUSING PROJECT 2.191 ACRES OF LAND AT PLOT NO.: 336/2120, 336/3046, 336/3035, 336/2764, 336, 336/3221, 334/2272 KHATA NO-703/362, 703/1499, 703/1496, 703/1222, 703/2256, 703/1720, 703/559, OVER AN BUILT-UP AREA – 47957.9 SQ.M NEAR NH-16 ROAD, AT-PATRAPADA, BHUBANESWAR, DIST – KHORDHA FOR M/S. UTKAL BUILDERS LTD OF SRI RAKESH BHURA – MOD EC

PART A - SPECIFIC CONDITIONS:

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc. as per National Building Code including protection measures from lightening etc.
3. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
4. The project proponent shall ensure that the guidelines for building and construction projects issued vide this Ministry's OM NO.19-2/2013-IA.III dated 9th June, 2015, are followed to ensure sustainable environmental management.
5. The proponent shall obtain prior clearance from the Standing Committee of the National Board for Wild Life if the project will be located within any Eco-Sensitive Zone of Wild Life Sanctuary.

TOPOGRAPHY AND NATURAL DRAINAGE

6. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape and other Sustainable Urban Drainage Systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
7. The permission from competent authority will be obtained to discharge the excess storm water to drain if any. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially.
8. Permission for construction of drain alongside the adjacent NH under construction for allowing the proponent to discharge the treated waste water as well excess runoff water during monsoon from NH Authority shall be obtained. The construction of drains shall be synchronized with the completion of the construction of the Housing Project.

WATER REQUIREMENT, CONSERVATION, RAIN WATER HARVESTING, AND GROUND WATER RECHARGE

9. As proposed, fresh water requirement from ground water shall not exceed 104 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the

quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of 06 nos. shall be provided.
17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.
18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

SOLID WASTE MANAGEMENT

19. The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
20. Disposal of muck during construction phase shall not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
21. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
22. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

23. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste generated from project shall be obtained.

SEWAGE TREATMENT PLANT

24. Sewage shall be treated in STP of capacity 150 KLD. The treated effluent from STP shall be reused for flushing, landscaping, floor & car washing.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

32. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
33. Energy conservation measures like installation of CFLs / LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.

J Nayak
Environmental Scientist, SEAC

34. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 5% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher. Follow super ECBC requirement of ECBC 2017 and provide compliance report.
35. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.
36. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
37. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.

AIR QUALITY AND NOISE

38. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, morram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, morram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
39. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
40. **Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.**
41. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

42. For indoor air quality the ventilation provisions as per National Building Code of India shall be provided.
43. Ambient noise levels shall conform to residential standard both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 1,793.52 sqm (20.23% of total plot area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

45. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

TRANSPORT

46. A comprehensive mobility plan, as per Ministry of Urban Development best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation
47. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project.
48. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
49. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

50. A dedicated entry/exit and parking shall be provided for commercial activities.
51. Barricades shall be provided around project boundary.
52. Speed of the vehicles shall be restricted upto 15 kmph by erecting speed bumps at regular intervals at project site and proper signage shall be provided for guided vehicular movement and speed restrictions.
53. Parking shall be prohibited on the access road to the proposed project site.
54. Footpath shall be seamless with sufficient width.
55. No vehicles shall be allowed to stop and stand in front of the gate on main access.
56. A buffer of minimum 10 m shall be maintained between the entry/exit gate and the road to avoid traffic congestion.
57. The Traffic Management Plan prepared by the proponent shall be duly validated and certified by the State Concerned Competent Authority and shall have also their consent before implementation.

ENVIRONMENT MANAGEMENT PLAN

58. An Environmental Management Plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. A dedicated Environment Monitoring Cell with defined functions and responsibility shall be put in place to implement the EMP. The environmental cell shall ensure that the environment infrastructure like Sewage Treatment Plant, Landscaping, Rain Water Harvesting, Energy efficiency and conservation, water efficiency and conservation, solid waste management, renewable energy etc. are kept operational and meet the required standards. The environmental cell shall also keep the record of environment monitoring and those related to the environment infrastructure.

OTHERS

59. Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
60. A First Aid Room shall be provided in the project both during construction and operations of the project.
61. The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.
62. As per the MoEF&CC, Govt. of India Office Memorandum F.No.22-65/2017-IA.III dated 1st May 2018, the project proponent is required to prepare and implement Corporate Environment Responsibility (CER) Plan. As per para 6(II) of the said O.M. appropriate funds shall be earmarked for the activities such as infrastructure creation for drinking water supply, sanitation, health, education, skill development, roads, cross drains, electrification including solar power, solid waste management facilities, scientific support and awareness to local farmers to increase yield of crop and fodder, rain water harvesting, soil moisture conservation works, avenue plantation, plantation in community areas etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire

activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

PART B – GENERAL CONDITIONS

1. A copy of the Environmental Clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.
2. The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to the SEIAA, Odisha and MoEF&CC, Govt. of India and its concerned Regional Office.
3. Officials from the Regional Office of MoEF&CC, Bhubaneswar who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection.
4. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA, Odisha.
5. The SEIAA, Odisha reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
6. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
7. These stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and the EIA Notification, 2006.
8. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the SEIAA, Odisha. The advertisement shall be made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of MoEF&CC, Bhubaneswar.
9. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
10. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The

clearance letter shall also be put on the website of the company by the proponent.

11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
12. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC, Govt. of India by E-mail.

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

Stipulated Conditions:

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

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

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

18. River Bank stabilization shall be made through stone patching. Plantation of adequate number native species on river banks and both sides of haulage roads shall be made.
19. During transportation of sand, all traffic safety measures shall be taken to avoid any kind of accidents.
20. Bio - toilet provision shall be made.
21. Stone patching on river bank with plantation in-between and the ramp construction shall be done in consultation with and advice of concerned W.R.Deptt, Government of Odisha.
22. Necessary sprinkling on Haulage Road and Avenue plantation shall be done.
23. At the end of mine closure, the proponent shall immediately remove all the sheds put up in the quarry and all the equipment in the area before closure of the quarry.
24. The conditions stipulated in the environmental clearance will be closely monitored on the ground by the lease granting authority, i.e. the Tahasildar, who shall ensure compliance of the stipulated conditions and take corrective measures promptly in case of any non- compliance and also ensure that the project proponent submits quarterly compliance reports.
25. The concerned Regional Office of the MoEF&CC/ SPCB, Odisha shall periodically monitor compliance of the stipulated conditions as applicable for this project. The project authorities should extend full cooperation to the MoEF&CC officer(s)/SPCB officer(s) by furnishing the requisite data / information / monitoring reports.
26. A copy of the clearance letter shall be sent by the proponent to concerned Gram Panchayat /Panchayat Samiti /Zilla Parisad /Municipal Corporation / Urban Local Body as the case may be.
27. Project proponent shall obtain Consent to Operate from the OSPCB and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the State Pollution Control Board.
28. The SEIAA, Odisha may revoke or suspend this EC, if implementation of any of the above conditions is not satisfactory. The SEIAA, Odisha reserves the right to alter /modify the above conditions or stipulate any further condition in the interest of environment protection.
29. The Project Proponent (lease holder) shall inform the SEIAA of any change in ownership of the mining lease. In case, there is any change in ownership or mining lease is transferred, then mining operation can be carried out only after transfer of EC as per provisions of the para 11 of EIA Notification, 2006, as amended from time to time.
30. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this environment clearance besides attracting penal provisions in the Environment (Protection) Act, 1986.

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31. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court and any other Court of Law relating to the subject matter.
32. This Environmental Clearance (EC) is subject to orders/judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
33. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.

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

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