PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE, ODISHA HELD ON 10TH MARCH 2025

The SEAC met on 10th March, 2025 at 04:00 PM 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.

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

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

ITEM NO. 01

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S D.N. HOMES PVT. LTD FOR LIG RESIDENTIAL APARTMENT AT PLOT NO- 156, 157, 160, 161, 162, 163, 164, 165, 166, 167 & 170 OF HAL KHATA NO.- 855 TOTAL BUILT-UP AREA 42,371.18 M2. OF MOUZA - BARAMUNDA, TEHSIL- BHUBANESWAR, DIST- KHURDA OF SMT. RATNAMALA SWAIN - EC

1. This proposal is for Environmental Clearance of M/s D.N. Homes Pvt. Ltd for LIG Residential Apartment at Plot No- 156, 157, 160, 161, 162, 163, 164, 165, 166, 167 & 170 of Hal Khata No.- 855 total built-up area 42,371.18 m2. of Mouza - Baramunda, Tehsil - Bhubaneswar, Dist - Khurda of Smt. Ratnamala Swain.

2. **Category**: This project falls under Category "B" or Schedule 8(a): Building & Construction Projects as per EIA Notification dated 14th Sept, 2006 and its amendments.

3. M/s D.N. Homes Pvt. Ltd. proposes an LIG Residential Apartment at Plot No- 156, 157, 160, 161, 162, 163, 164, 165, 166, 167 &170 of Hal Khata No.- 855 of Mouza - Baramunda, Tehsil - Bhubaneswar, Dist- Khurda, Odisha having total land area - 11,881.47 m^2 (2.93 acres) and the proposed built-up area is 42,371.18 m^2.

4. The project comprises of the following:

   5 Residential Blocks (S+9) [Block nos. 3, 4, 5, 6, 7]

   1 Residential Block (S+5) [Block no. 8]

   Shopping Complex and Multipurpose Amenity Centre (G+5) [Block no 2]

   Public Washroom Complex and ICT Room (G) [Block no. 1].

5 **Location and connectivity:** - The project site is located at Plot No. - 156, 157, 160, 161, 162, 163 164, 165, 166, 167 & 170 of Hal Khata No. - 855 of Mouza - Baramunda, Tahasil - Bhubaneswar, Dist. - Khurda, Odisha The geographical co-ordinates of centre of project site are 20°16'25.3"N and 85°47'17.3"E. The location of the project area can be seen in Survey of India Open Series No. Toposheet - F45T15. The Nearest Highway is NH-16 which is approx. 0.6 km in east direction from the project site. The nearest Railway Station is Bani Bihar Railway Station which is about 7.0 km (ENE) away from the project site. Nearest airport is Biju Patnaik International Airport is 2.2 km (SE) from the project site. Nearest water body is Daya River at a distance of 8.2km and Daya Canal at a distance of 6.7km from the project site. Nearest Sanctuaries are Chandaka Wild Life Sanctuary (ESZ) located at a distance of 0.8 km and Nandankanan Wild Life Sanctuary (ESZ) located at a distance of 12.0 km from the project site.

6. The site is coming under Bhubaneswar Development Authority.

7. **Building Area Details:**

S. No.	Particulars	Area (m^2)
i)	Total Plot Area	11,881.47
ii)	Permissible Ground Coverage (@40% of the net plot area)	4,752.58
iii)	Proposed Ground Coverage (@39.35% of the plot area)	4,675.08
iv)	Permissible FAR (@6.0 of the plot area)	71,288.82
	Total Proposed FAR (@3.09 of the plot area)	**36,769.51**
v)	• Residential Area (Block 3,4,5,6,7,8)	34,827.51
	• Neighbourhood Shopping and Multipurpose Amenities Center (Block 2)	1942.00
	Non-FAR Area	**5,601.67**
	• Residential Area (Block 3,4,5,6,7,8)	5,404.25
vi)	• Neibourhood Shopping and Multipurpose Amenities Center (Block 2)	163.47
	• Public Washroom Complex and ICT Room (Block 1)	33.95
vii)	**Built-up Area (5+6)**	**42,371.18**
viii)	Landscape Area (@28.37% of the plot area)	3,370.37
ix)	Maximum Height of the Building (m)	30.95
x)	Estimated Population	2,979 persons

8 **Water requirement and waste water management:** During operation phase, the source of water supply will be from Ground water. The total water requirement for the project will be approx. 351 KLD out of which domestic water demand is 338 KLD. The freshwater requirement will be 222 KLD and flushing water is 116KLD. Application for CGWA NOC has been applied vide no. INF/OD/2024/358 dated 19.11.24.

Total Waste water generation [@80% fresh + 100% flushing] is 294KLD which will be treated in STP of Capacity 350 KLD with MBBR Technology. Treated water recovered is 265 m^3/day will be reused in Flushing – 116KLD, Horticulture – 13KLD and 136KLD of treated waste water will be discharged to nearby drain in dry seasons (Summer). During monsoon season unused treated sewage water of 147 KLD and during winter season unused treated sewage water of 143KLD will be discharged to nearest drain

9. **Rainwater harvesting Pits(RWH)**: 11 RWH pits of capacity 39.25 m^3 are proposed to be constructed.

10. **Power requirement**: The power supply will be through TP Central Odisha Distribution Limited (TPCODL). The maximum demand load is estimated as 1939 KW. 5% of the total power demand will be met through solar energy i.e. approx. 97 KW along with 5% for LED lighting and other conservation measures. There is provision of 1 no. of DG set of 550 kVA capacity for power back up. The DG set will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion flue gas as per CPCB norms.

11. **Details of Solar Power generation**, consumption and its contribution in percentage (%) towards total power required in project: Solar based Lighting will be done in the common areas, stair cases, landscape areas, signage, entry gates and boundary walls etc. (5% from total power load) – 97KW(Approx).

12. **Total Solid waste generation and management**: The solid waste generation will be 1344 kg(Approx) per day (@ 0.25 kg per capita per day for staff, @ 0.15 kg per capita per day for the visitor, 0.5 kg capita per day resident and landscape waste @ 0.2 kg/acre/day and STP Sludge) The solid waste will be collected then segregated at source. Adequate number of colored bins (green, blue & dark grey) separate for bio-degradable and non-biodegradable are proposed to be provided at the strategic locations within the site. STP sludge is proposed to be used for horticultural purpose as manure. Horticultural Waste/ Biodegradable waste will be composted by Organic Waste Converter.50 sqm area has been proposed for OWC.Spent oil from DG sets will be sold to CPCB authorised recyclers.

S. No.	Description	Occupancy	Norms (kg/capita/day)	Waste Generated (kg/day)
1	Domestic Solid Waste			
	Residents	2400	0 5	1200
	Staff	164	0.25	41
	Visitors	415	0.15	62 25
2.	Horticultural Waste (0.83 acre)		@ 0.2 kg/acre/day	0.16
3.	STP Sludge		Wastewater x 0 35 x B.O.D difference/1000	40 13
Total Solid Waste = 1343 54 say 1344 kg/day				

13. **Green belt**: Green Belt will be developed over an area of 3,370.37 m^2 i.e. 28.37% of the plot area. Total 180 Nos. of plants to be planted and 3m spacing between plants and it will be 2 tier plantations.

14. **Parking area:** As per Bhubaneswar Development Authority byelaws: Parking required@10% of Residential FAR = 3,547.06 sqm. Parking required@40% of Commercial FAR = 519.58 sqm. Total Parking Required = 4,066.64 sqm. Parking Proposed: Area proposed for Stilt Parking = 3902.97 sqm. Area proposed for Surface Parking = 258.58 sqm. Total Proposed Parking Area = 4,161.55 sqm. Proposed Two-wheeler parking = 480 nos.

15. **Firefighting details:** Firefighting measures will be adopted as per the guidelines of NBC. External yard hydrants shall be installed around all buildings in the complex in galvanized steel

fire house cabinet (weatherproof). All external yard hydrants shall be at one meter height from finished ground level as per NBC at a distance of 60 m along the road. External fire hydrants shall be located such that no portion of any building is more than 45 m from a hydrant and the external hydrants are not vulnerable to mechanical or vehicular damage.

16. **Project cost**: The estimated Project cost is 84.67 Crores and Cost for EMP is 142 Lakhs.

COMPONENT	CAPITAL COST (INR LAKH)	RECURRING COST (INR LAKH/YR)
Sewage Treatment Plant	364.70	9
Rainwater Harvesting System	16	4
Solid Waste Management	3	0.75
Environmental Monitoring	0	9
Green Area/ Landscape Area	2	0.5
Others (Energy saving devices, miscellaneous)	85	10
Total	142	33.25

17. **Environment Consultancy**: The proponent along with the consultant **M/s Grass Roots Research & Creation India (P) Ltd. Noida** made a detailed presentation before the SEAC.

18 The SEAC in its meeting held on dated **30.12.2024** recommended the following:

A. The proponent may be asked to submit the following for further processing of EC application:

i) Supporting documents for road connectivity to the project site.

ii) Details of layout of drain for facilitating safe discharge of stormwater along with excess treated sewage water to the nearest public drain along with permission of appropriate authority for the same.

iii) NOC from concerned DFO that the project is outside the Eco-sensitive zone of Chandaka and Dampara Wildlife Sanctuary.

iv) The SEAC observed the treated waste water discharge to drain is at higher side. Hence, project proponent shall explore ways to reduce the quantity of treated water discharge to drain by increasing the usage of treated water in horticulture/greenbelt, vehicle washing etc.

v) Revise water balance to be submitted.

vi) List of plant species to be planted in greenbelt. The SEAC suggested to plant fast growing species.

vii) Soil analysis report should be submitted with respect to physical, chemical and engineering properties of soil.

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

i) Environmental settings of the project site.

ii) Extent of construction activity.

iii) Road connectivity to the project site.

iv) Drainage network at the site.

v) Safety concern to be checked.

vi) Greenbelt development in the existing plant.

vii) Solid waste management practice of the existing plant.

viii) Vacant land available.

ix) Any other issues including local issues.

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	Views of SEAC
i)	Supporting documents for road connectivity to the project site.	Supporting document from Land Officer, BDA regarding road connectivity to the project site is attached as **Annexure I.**	Annexure - I is attached from Land office, BDA marking the road connectivity along with kisam details. However, kisam is not gharabari
ii)	Details of layout of drain for facilitating safe discharge of storm water along with excess treated sewage water to the nearest public drain along with permission of appropriate authority for the same.	The existing public drain is 121m away from project site. The diameter of the drain is 4.5m Layout showing discharge location for storm water and excess treated sewage to the nearest public drain is attached as **Annexure- II.** We have applied for permission for discharge of storm water along with excess treated sewage water to the nearest public drain Copy of Acknowledgement is attached as **Annexure III.**	Layout and application for the permission for discharge of storm water along with excess treated sewage water to the nearest public drain is attached as Annexure II and Annexure III respectively
iii)	NOC from concerned DFO that the project is outside the Ecosensitive zone of Chandaka and Dampara Wildlife Sanctuary.	A letter from DFO is attached as **Annexure IV.** Sol toposheet showing that project site is outside ESZ of Chandaka Dampara Sanctuary is attached as **Annexure V.**	Letter from DFO is attached as Annexure IV mentioning to visit the official website of Chandaka wildlife division for the same Annexure V is attached and from which it is observed that project site is within the FSZ of Chandaka Dampada Wild Life Sanctuary
iv)	The SEAC observed the treated water discharge to drain is at higher side. Hence, project proponent	The treated effluent will be reused for flushing, horticulture. Surplus treated water will be used for	Complied.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	shall explore ways to reduce the quantity of treated water discharge to drain by increasing the usage of treated water in horticulture/greenbelt vehicle washing etc.	dust suppression, road washing/vehicle washing and supply to nearby users. This will help reduce the quantity of discharge to external drain.	
v)	Revise water balance to be submitted.	Revised water balance is attached as **Annexure VI.**	Annexure VI is attached and complied.
vi)	List of plant species to be planted in greenbelt. The SEAC suggested to plant fast growing species.	Revised list of plantations is attached as **Annexure VII.**	Annexure VII is attached and complied.
vii)	Soil analysis report should be submitted with respect to physical, chemical and engineering properties of soil.	Soil analysis report is attached as **Annexure VIII.**	Annexure VIII is attached and complied.

20 The proposed site was visited by the sub-committee of SEAC on **21.02.2025**. Following are the observations of the sub-committee:

a) The site is clear without any construction given by IDCO.

b) There is a road side of the plot and a drain to be constructed at the side (as informed by PP).

c) PP was advised to submit a copy of letter applied for discharge of storm water and excess treated water to the drain and sewerage line **(the application of which they submitted-attached) in the site visit report.**

d) Also copy of approval/letter of drainage plan and discharge of storm water attached in the site visit report.

e) BMC approval copy also attached in the site visit report.

f) PP informed to take permission to discharge sewerage through Govt. system. But a STP may be installed for smooth operation

g) PP to take NOC for disposal of excess treated water into the nearest drain.

21. The SEAC observed the following:

a) Annexure V furnished by the proponent reveals that the project site is within the Eco-Sensitive Zone (ESZ) of Chandaka Dampada Wild Life Sanctuary.

b) **The proponent has to apply for Wildlife Clearance as it is located within Eco-Sensitive Zone (ESZ) of Chandaka Dampada Wild Life Sanctuary as revealed from the information furnished and submit a copy of the application for Wildlife Clearance for grant of Environmental Clearance for the proposal.**

c) The project proponent has to submit certificate from concerned DFO that the project site is outside the Eco-sensitive zone of Chandaka and Dampara Wildlife Sanctuary.

Considering the information furnished and the presentation made by the consultant, **M/s Grass Roots Research & Creation India (P) Ltd. Noida** along with the project proponent, the SEAC recommended the following:

A. Environmental Clearance may be granted to the project valid for 10 years with stipulated conditions as per Annexure – A in addition to the following specific conditions.

i) The proponent shall obtain Wildlife Clearance if applicable

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) Internal drainage plan with RWH/Re-charge Pits to be taken up based on requirement and with approval of the authority.

v) Care to be taken in developing land scape to avoid flood situation.

vi) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.

vii) The proponent shall obtain permission from concerned Fire Safety Authority

viii) Trees located within the project area shall be transplanted to alongside the boundary green development area.

ix) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.

x) 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.

xi) 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.

xii) 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.

xiii) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

xiv) Considering that the project is in an eco-sensitive zone, the PP will operate only battery-operated vehicles within the resort premises to minimize disturbances to wildlife, maintain tranquillity, and promote sustainable tourism.

xv) The proponent will explore and promote sustainable livelihood opportunities for the local community.

B. The SEIAA, Odisha may consider to grant Environmental Clearance after the proponent submits the following information / documents:

a) Certificate from concerned DFO that the project site is outside the Eco-sensitive zone of Chandaka and Dampara Wildlife Sanctuary.

b) Copy of the application submitted for Wildlife Clearance if the project site is within the Eco-Sensitive Zone (ESZ) of Chandaka Dampada Wild Life Sanctuary.

ITEM NO. 02

PROPOSAL FOR AMENDMENT OF ENVIRONMENTAL CLEARANCE OF M/S BUILDERS CONSORTIUM TRIDEV FOR PROPOSED RESIDENTIAL COLONY PROJECT WITH TOTAL BUILT-UP AREA 99, 184.48M² AT MOUZA- PRATAPNAGARI, DISTRICT-CUTTACK OF SRI CHETAN KUMAR TEKARIWAL – MOD EC

1 This proposal is for amendment of Environmental Clearance of M/s. Builders Consortium Tridev for proposed Residential Colony Project with total built-up area 99,184.48m² at Mouza-Pratapnagari, District-Cuttack of Sri Chetan Kumar Tekariwal.

2. **Category**: As per EIA Notification, 2006 and its subsequent amendments, the proposed project falls under Category 'B' in Schedule in item 8(a) - Building and Construction projects.

3 The project was earlier granted Environment Clearance by SEIAA, Odisha vide letter no. SIA/OR/MIS/230667/2021 dated 07.06.2022 for Plot area = 16,156.74 sqm (3.99 acre) and Built-up area = 39,757.3 sqm.

4 Later they have obtained Environmental Clearance for revision and expansion of Residential Colony Project at Mouza – Pratapnagari, District-Cuttack vide file no. 21-70/2022-IA-III dated 06 02 2023 for Plot area = 16,156.74 sqm (3.99 acre) and Built-up area = 1,01,781 sqm.

5. Now, application has been applied for amendment of EC as there is a change in project design and Built-up area is reducing from 1,01,781 sqm to 99,184.48 sqm, whereas, the Plot area remains unchanged i.e. 16,156.74 sqm (3.99 acre).

6. **Location and connectivity**: The project site is located at Plot No. 1966, 1966/6337, 1967, 1977/3199, 1978, 1981, 1987, 1988, 1989/6336, 1989/6084, 1990, 1991, 1993, 1995, 1998, 1999, 2001, 2001/6335, 2004, 2005, 2006, 2009 & 2029, Khata No. 985/1389, 985/1390, 985/1383, 985/385, 11-D1, 863, 90, 985/1569, 985/665, 985/666, 937, 938, 985/668, 985/667, 985/1214, 363, 985/667, 985/668, 985/669 & 985/1388 Mouza - Pratapnagari, District- Cuttack, Odisha. The geographical co-ordinates of center of project site are 20°23'45.83"N and 85°53'03 59"E Toposheet no 73H15 The Nearest Highway is NH-16 which is adjacent to the project site The nearest Railway Station is Gopalpur Balikuda Railway Station is about 4 km (ESE) away from the project site Biju Patnaik International Airport is at 17 km (SSW) from the project site

7 The proposed project is coming under Cuttack Development Authority (BDA).

8 The plot area is 16,156.74 sqm (3.99 acres) with total built-up area 99,184 48m².

9 Statutory clearances obtained

- CGWA NOC has been obtained vide no. CGWA/NOC/INF/ORIG/2022/14893 valid from 25th

March 2022 to 24th March 2027.

- NOC from DFO, Nandankanan obtained vide letter no. 506/3F-12/2022 dtd. 28.01.2022.

10. **Detailed comparative Area Statement:**

S. No.	Particulars	Area (m^2) (EC Accorded)	Area (m^2) (Amendment)	Total Area (m^2) (Post Amendment)
1.	Total Plot Area	16,156.74	No change	16,156.74
2.	Permissible Ground Coverage	6,582.696 (@40% of the Plot area)	No change	6,582.696 (40% of the Plot area)
3.	Proposed Ground Coverage	6,446.539 (@39.90% of the Plot area)	-1.117 748	5,328 791 (32.98% of Net Plot Area)
4.	Permissible FAR	1,06,097.18 (@7 of Plot Area)	No change	1,06,097.18 (@7 of Plot Area)
5.	Proposed FAR	67,756.86 (4.19 of Plot Area)	-3,451.31	64,305 55 (@3.98 of Net Plot Area)
6.	Non-FAR Area:	34,024.14	854.79	34,878.93
	• Service Area	822.83	1976	2799.26
	• Mumty Area	164.1	408.47	572.57
	• Stilt Parking Area	17,016.96	-14,578.71	2,438.25
	• Fire Tower Area	4,071.06	-86.65	3,984 41
	• Basement Area	11,949.19	13,135.	25,084.44
7.	**Total Built Up Area**	**1,01,781.0**	**-2,596.52**	**99,184.48**
8.	Green Area	6,371.73 (@39.43% of the plot area)	699.96	7071.69 (@43.76% of the plot area)
9.	Maximum Height of the building (m)	71.5	3.8	75.3

11 **Water requirement**: The total water requirement for the project will be approx 401 KLD out of which 373 KLD is the Domestic water requirement. The freshwater requirement for the project will be 247 KLD. During operation phase, the source of water supply will be from Ground water

Sl. No.	Description	Occupancy	Rate of water demand (LPCD)		Total Water Requirement (KLD)		
a)	Domestic Water		Fresh	Flushing	Fresh	Flushing	Total
•	Residents	2,689	90	45	242.01	121	363.01
•	Staff	134	25	20	3.35	2 68	6.03
•	Visitors	269	5	10	1.34	2.69	4 03
	Total				247	126	**373**
b)	Horticulture	7071.69 m^2	4 ll /m^2/day				28
	Grand Total (A+B) = 401 KLD						

S. No.	Description	Value as per Earlier EC	Amendment	Total Quantity (Post Amendment)
1.	Total Water Requirement	308 KLD	93 KLD	401 KLD

2	Fresh Water Requirement	205KLD	42 KLD	247 KLD
3	Wastewater Generation	240KLD	84 KLD	324 KLD
4.	STP Capacity	300KLD	50 KLD	350 KLD

12. **Wastewater Management:** The project will generate approx.324 KLD of wastewater. The wastewater will be treated in STP of capacity 350 KLD. The treated effluent will be reused for flushing & horticulture. Surplus treated effluent will be discharged to external sewer.

Description	Quantity
Domestic Water	373 KLD
• Fresh water	247 KLD
• Flushing water	126 KLD
Waste water [@80% fresh + 100% flushing]	197.6 + 126 = 324 KLD
STP Capacity	350 KLD

13 **Rain water harvesting:** They have proposed 9 RWH tanks of 50.24 m^3 capacity each to collect rainwater for 467 97 m^3 runoff load

14. **Power requirement:** The power supply will be supplied by TPCODL. The maximum demand load is estimated at 3659KW. There is provision of Power backup for the proposed project and will be through DG sets of total capacity (2 X 1010 KVA) = 2020 KVA. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion of flue gas.

15 **Solar Power requirement:** 5% of the total power demand will be met through solar energy i e. 182.95 KW along with 5% for LED lighting and other conservation measures. Solar energy will be utilized for street lighting, solar blinkers and signage to reduce electricity consumption

16 **Parking requirement:** They have proposed Parking Area to be 16075.38 m^2. A total of 762 ECS parking is proposed.

17 **Fire Fighting Installation:** Firefighting measures will be adopted as per the guidelines of NBC. External yard hydrants shall be installed around all buildings in the complex in galvanized steel fire house cabinet (weather proof) All external yard hydrants shall be at one meter height from finished ground level as per NBC at a distance of 60 m along the road. External fire hydrants shall be located such that no portion of any building is more than 45 m from a hydrant and the external hydrants are not vulnerable to mechanical or vehicular damage

18 **Solid waste generated and its management:** During the operation phase, solid waste will be generated from domestic source as well as horticulture . The solid waste generated from the project will be approx. 1470 kg per day (@ 0.5 kg per capita per day for residents, 0.15 kg per capita per day for the visitor, 0 3 kg per capita per day for the staff members and landscape waste @ 0 2 kg/acre/day.

S. No.	Description	Occupancy	Norms (kg/capita/day)	Waste Generated (kg/day)
1.	Domestic Solid Waste			
	Residents	2,689	0.5	1345
	Staff	134	0.3	40.2
	Visitors	269	0.15	40.35
2.	Horticultural Waste (1.74 ac)	@ 0.2 kg/acre/day		0.348
3.	STP Sludge	Wastewater x 0.35 x B.O.D difference/1000		44.22
Total Solid Waste = 1470 kg/day				
EC accorded (kg/day)		Amendment (kg/day)		Total (kg/day) (Post Amendment)
1720		- 250		1470

19. **Greenbelt development**: Green Belt will be developed over an area of 7071.69 m^2 which is 43.76% of total plot area. Total 287 Nos. of plants to be planted.

20. **Project cost**: The estimated Project cost is 157.84 Crores

Component	Capital Cost (INR Lakh)	Recurring Cost (INR Lakh/yr)
Sewage Treatment Plant	35	8.75
Rain Water Harvesting System	13.5	3.37
Solid Waste Management	3	0.75
Environmental Monitoring	--	9
Green Area/ Landscape Area	4.24	1.06
Others (Energy saving devices, miscellaneous)	10	2.5
Total	65.74	25.43

21. **Environment Consultancy**: The proponent along with the consultant **M/s Grass Roots Research & Creation India (P) Ltd. Noida** made a detailed presentation before the SEAC on 13.12.2024.

22. The SEAC in its meeting held on dated 30.12.2024 recommended the following:

A. The proponent may be asked to submit the following for further processing of EC application:

i) Comparative table of environmental parameters including area that had been reduced i.e., what changes had been made in Modified EC with remarks for each parameter. Proper justification for each change shall be specified.

ii) Details of capacity of rain water tanks.

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

i) Environmental settings of the project site.

ii) Extent of construction activity

iii) Road connectivity to the project site.

iv) Drainage network at the site

v) Safety concern to be checked.

vi) Greenbelt development in the existing plant.

vii) Solid waste management practice of the existing plant.

viii) Vacant land available.

ix) Any other issues including local issues.

23. 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	Comparative table of environmental parameters including area that had been reduced i.e., what changes had been made in MOD EC with remarks for each parameter. Proper justification for each change shall be specified.	Comparative table with details of project with justification for change in parameters is attached as Annexure-I.	Annexure- I is attached and complied
2	Details of capacity of rain water tanks	9 RWH pits each of capacity 50.24 m3 are proposed for ground water recharge. Detailed RWH calculation and layout is attached as Annexure-II (a) & (b) respectively.	Annexure II (a) & (b) is attached They have given details of RWH pits. But not submitted details rain water collection tanks capacity before recharge into RWH pits

24 The proposed site was visited by the sub-committee of SEAC on 03.03.2025. Following are the observations of the sub-committee

i) The plot is situated adjacent to NH 16. In between National Highway and plot, one canal and a government service road are present. The main entry and exit gate of the plot is in front of the service road.

ii) The plot is vacant and no construction activities were taken up.

iii) There are no trees on the plot. Green belt should be developed as per CPCB norms.

iv) The layout plan was explained by the PP and team. When asked about the reduced built up area, the PP replied, "this is due to latest approved plan". The party was asked to submit in detail with comparative statement along with the approved plan.

v) From the lay out plan it is observed that near the entry gate some commercial units/shops are there. This proposal has not been declared commercial except residential. When asked, PP mentions that few shops are only for the use of residents.

vi) The site is not flood prone.

vii) There is no existing drain except the presence of Nala in between National Highway and black topped service road. Hence, NOC/Permission for discharge of treated water and storm water to the nearest nala should be obtained from the appropriate authority.

viii) Permission with approval for constructing drain up to Nala, if any, across the road should be obtained from the appropriate authority.

ix) Stack height and emission standards for DG Sets should be maintained as per CPCB guideline.

x) The traffic study, structural stability and fire safety certificates from reputed institute should be submitted.

Considering the information furnished and the presentation made by the consultant, M/s Grass Roots Research & Creation India (P) Ltd. Noida along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per Annexure – B in addition to the following specific conditions.

i) 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.

ii) 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.

iii) NOC/Permission for discharge of treated water along with storm water to the nearest public drain to be obtained from the appropriate authority including passing the Govt land.

iv) Internal drainage plan with RWH/Re-charge Pits to be taken up based on requirement and with approval of the authority.

v) Care to be taken in developing land scape to avoid flood situation.

vi) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.

vii) The proponent shall obtain permission from concerned Fire Safety Authority

viii) The commercial block to be used only for the residents of that apartment as mentioned by PP.

ix) Trees located within the project area shall be transplanted to alongside the boundary green development area

x) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.

xi) The Project proponent to explore the possibility to install two STPs with aerator to ensure there is no failure in treatment of waste water.

xii) 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.

xiii) 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.

xiv) 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.

xv) 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. 03

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR BAITARINI SAND BED, GOVINDAPUR OVER AN AREA OF 5.26 HA. IN BAITARANI RIVER AT VILLAGE GOVINDAPUR UNDER HATADIHI TAHASIL, OF KEONJHAR DISTRICT OF SRI GAJENDRA KUMAR SAHOO - EC

1 This proposal is for Environmental Clearance for Baitarini Sand Bed, Govindapur over an area of 5.26 Ha In Baitarani River at village Govindapur under Hatadihi Tahasil, of Keonjhar District of Sri Gajendra Kumar Sahoo.

2 **Category** As per EIA Notification,2006 and its subsequent amendments, the proposed project falls under Category B1 under Item 1(a) - Mining of Minerals.

3 The lease is granted (Successful Bidder) in the name of Sri Gajendra Kumar Sahoo for a lease period of 5 (five) years vide letter no. 6410 dtd 29.09 2020.

4 The Mining plan has been approved for a period of five years by the Joint Director of Geology, Keonjhar. Vide letter no – 2406/CZ, on dated 30.07.2020 in favour of Tahsildar, Hatadihi.

5. **TOR details**: Terms of Reference (ToR) was issued by SEIAA, Odisha on dated 27.12.2021.

6 **Public hearing details**: Public hearing was conducted on 22.09.2023 at 11.00 AM Issues raised were plantation to be carried out in haulage roads and on free places within govt land, maintenance of village roads, safe transportation of minerals, local employment, development of peripheral village etc. and budget assigned is Rs. 12.60 lakhs.

7. **Location and connectivity**: The lease area under reference featured in the Survey of India Toposheet no.73K/4 is on Khata No. 156, Plot No.494/1, Kissam - Nadi. The geo co-ordinates of the lease area is 21°03'25.86"N 86°12'28.25"E to 21°03'24.79"N 86°12'29.90" E. The Lease area is accessible from Govindapur village road at a distance of 1.0 km. which is well connected to Dhakota Chhaka and then Highways The nearest railway station is Sagadapata at distance 28 km from the lease area The area is located 75km from District Headquarters Keonjhar and 190 Km from State Capital Bhubaneswar. Nearest railway station is at Dulakha Patana PH Railway Station at a distance of 6 20Km. Nearest Airport is Bhubaneswar Airport which is at a

distance of 195.1 Km.

8. **Reserves and production:** As estimated, geological reserve of sand is 1,05,200cum and mineable reserve is 54,855cum. During the plan period, a total of 54,855cum sand will be extracted.

9. **Replenishment study details:** The Study was carried out by using UAV/ Drone method as per the SSMG, 2020 guidelines. The pre-monsoon data was conducted on 10.06.2023 and post monsoon data on 28.11.2023. As, per the calculation, 3,033 m^3 sand has been replenished with an average thickness of 0.16 m.

10. **Baseline study details:** Baseline data carried out for Ambient Air Quality (AAQ) during period March 2022 to May 2022. **Ambient Air Quality results** - The PM_{10} ranges within 47-62 µg/m^3. $PM_{2.5}$ ranges within 25-47 µg/m^3, SO_2 ranges within 4.8-6.1 µg/m^3 & NO_x ranges within 9.6- 13.0 µg/m^3. **In noise levels results** – In residential areas daytime noise levels varied from 39 dB (A) to 52 dB (A) and night time noise levels varied from 30 dB (A) to 43 dB (A) across the sampling stations. The field observations during the study period indicate that the ambient noise levels are well within the prescribed limit by CPCB (55 dB (A) Day time & 45 dB (A) Nightime) **Surface Water results** - The pH value ranges from 6.9 to 7.1 and within the limits (6.5-8 5) of IS 2296:1992. The sulphate content in the collected surface water ranges 3.2 mg/l to 4.8 mg/l The chloride content in the collected surface water sample ranges from 9.5 mg/l to 10.0 mg/l DO of the collected surface water sample ranges from 6.2 mg/l to 7.0 mg/l BOD of the collected surface water sample ranges from 1.2 mg/l to 1.8 mg/l. **Ground Water results** - The ground water results of the study area indicated that the pH range varies between 6.9 and 7 3 It is observed that the pH range is within the limit of IS 10500:2012. The acceptable limit of the chloride content is 250 mg/l and permissible limit is 1000 mg/l. The chloride content in the ground water for study area ranges between 7.2 mg/l – 10.6 mg/l. It is observed that all are well within the permissible limit of IS 10500:2012. The acceptable limit of the sulphate content is 200 mg/l and permissible limit is 400 mg/l. The sulphate content of the ground water of the study area varies between 2.5 mg/l – 3.2 mg/l. It is observed that all the samples are within the permissible limit of IS 10500: 2012. **Soil Quality Analysis results** - The pH of the soil samples ranged from 6.2 to 7.3. Indicating that the soils are slightly acidic to moderately alkaline in nature, Nitrogen content ranged from 0.07 % to 0.10 %., Potassium ranged from 0.14 % to 0 18 %.

11. **Mining method:** The open cast manual method and transportation through trucks and tractors No mining activity will be undertaken during the monsoon season. So, the material will be replenished during the monsoon season every year. The proposed mined out areas will gradually get filled up by river sands transported with water from upstream direction The mineral extraction will be done for a period of 200days in a year. Dumpers, tractors will be used for transportation.

12. **Waste generation:** There is no waste generation, however small amount of municipal waste will be generated; & disposed off in Municipal bins.

13. **Water requirement:** Water requirement for the project is 1.0 KLD for domestic, plantation & dust suppression which will be sourced from village Panchayat and nearby sources.

Domestic Waste water will be disposed through septic tank. Will be cleaned in periodically.

14 **Power requirement**: No electricity is required for operations of the mining; the mining will be worked out during daytime only. 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 estimated as 1.0 KVA.

15. **Greenbelt development**: About 250 no. of saplings of local species will be planted under the green belt (safety zone) and non-mineralized area for five years.

16 **Manpower requirement**: Total manpower requirement is 18nos. i.e., Supervisory - 01 no Skilled - 01no, Semi- skilled -2no.s & Unskilled labourer- 14no.s.

17. **Project cost**: Total cost of the proposed project is 80.0 Lakhs. A capital cost of 16.60 lakhs is proposed as EMP cost & 4.25 lakhs/annum as EMP recurring cost. The CSR Budget is Rs 2 0Lakh/Annum.

18 **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 SEAC.

19 The SEAC in its meeting held on dated **10.06.2024** decided to take decision after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
a)	NOC/Permission from concerned authority for usage of approach road for transportation of sand	Transporting of sand will be carried out in the Govt. Road provided by Tahasildar, Hatadihi. (Annexure 1)	Sketch Route map is attached. NOC/Permission from concerned authority for usage of approach road for transportation of sand is not provided.
b)	Detailed calculation of mineable reserve with layout map showing excluded portion i e , safety zone and portion of lease covered with water	The mineable reserve has been calculated the leaving the lease boundary safety zone area, river bank safety zone area as well as the area coming under water body. (Page 8 of Mining Plan as Annexure 2).	Modified Mining plan is attached
c)	Submit the pre-monsoon & post-monsoon elevation reading as observed during the drone survey	Pre monsoon -29.89 m, Post monsoon 30.78 m (ARRS Report attached)	-
d)	Submit the RL of the river water surface, direction of the flow of river in the Replenishment Study Report.	RL of water surface - 29 m. Water flow direction is west to east direction (ARRS Report attached)	-
e)	The Replenishment Study Report submitted had several shortcoming	Drone survey has been carried out by collecting the pre monsoon and post	-

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	w.r.t surface RL, River water RL and River bank RL is not there, etc, Error in drone survey is high, Revised Replenishment Study Report with inclusion of these data. Revised approved mining plan to be submitted after reconciling the details given in the approved mining plan such as mineable area, RL of the riverbed sand surface, depth of mining etc. needs with those mentioned in the replenishment study report.	monsoon data in the month of May and Oct 2024 respectively. surface RL, river water RL and river bank RL are given page no. 16 & 32. (ARRS Report) Revised Mining plan has been prepared and approved by Geologist O/o the Joint Director Geology, Keonjhar vide letter no 886, dated 30.1.2025.(Mining Plan attached)	
f)	The mineable reserve calculated in the Mining plan is much higher than mineable reserve calculated in the Replenishment Study Report.	The mineable volume of sand available within the lease area is 18,666 cum During the replenishment study. 3,693 cum of sand has been replenished during the last pre monsoon & post monsoon survey in 2024.	Modified Mining plan and replenishment study report has been attached showing the similar values
g)	The proponent shall submit an undertaking that no Court case is pending w.r.t mining lease, as alleged during public Hearing.	Not attached	The proponent shall submit an undertaking that no Court case is pending w r t mining lease, as alleged during public Hearing is not submitted
h)	Submit the sand DSR approved by Competent Authority highlighting the proposed lease site.	Attached	DSR approved by Competent Authority highlighting the proposed lease site is attached.
i)	Copy of Terms of Reference (TOR) Letter as not found in online documents.	Attached	TOR letter is attached.

Considering the information furnished and the presentation made by the consultant. **M/s EHS 360 Labs Private Limited, Chennai** along with the project proponent. the SEAC recommended the following:

A. Environmental Clearance for the proposal may be granted valid upto lease period with stipulated conditions as per **Annexure – C** in addition to the following specific conditions for mining of sand of quantity **3693 cum/annum** as per Replenishment Study Report:

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-D.

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.

B. **The SEIAA, Odisha may consider to grant Environmental Clearance after the proponent submits the following information / documents:**

i) The proponent shall submit an undertaking that no Court case is pending w.r.t mining lease, as alleged during public Hearing

ii) NOC/Permission from concerned authority for usage of approach road for transportation of sand.

ITEM NO. 04

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR OLAGADA TARTOL MAHANADI SAND SAIRAT OVER AN AREA OF 20.00 ACRES OR 8.09 HA. HAVING KHATA NO. 377,336, PLOT NO. 1270,1123 IN VILLAGE OLAGADA AND TARTOL UNDER TIRTOL TAHASIL OF JAGATSINGHPUR DISTRICT OF SRI SAGAR KUMAR RAY - EC

1 This proposal is for Environmental Clearance of Olagada Tartol Mahanadi Sand Sairat over an area of 20.00 Acres or 8.09 Ha having Khata No. 377,336, Plot No. 1270,1123 in village Olagada and Tartol under Tirtol Tahasil of Jagatsinghpur District of Sri Sagar Kumar.

2 **Category:** As per the EIA notification 2006 and its subsequent amendments, proposed project falls in category B under schedule of Item 1(a)-Mining of minerals.

3 Quarry lease has been awarded to Sri Sagar Kumar Ray S/o-Sri Purna Chandra Behura, by Tahasildar of Tirtol for 5 years via letter no. 2433 dated 02/12/2021.

4. The mining plan was approved by Deputy Director Geology, Authorized officer, Directorate of Geology, Bhubaneswar vide letter no.5469/DG and date.15.09.2021.

5 Mining lease is an identified sairat source in the DSR page No.20, Sl.no.12, Annexure. I and the mine is an existing Mine.

6 **TOR details**: Terms of Reference (TOR), was issued by SEIAA, Odisha, vide proposal No -SIA/OR/MIN/71464/2022 and letter No.4585/SEIAA on dated 19 05.2022.

7 **Public hearing details:** Public hearing was conducted on 25.11.2022 at Bana Gachha Thakur Padia, Tahasil- Tirtol, Dist-Jagatsinghpur at 10.30 AM. Issues raised during public hearing are covering of sand loaded transporting vehicles to control air pollution, prevention of sand

spillage, availability of sand at concessional price. An amount of Rs. 40,000(CER Budget) has been incurred for action plan of public hearing.

8. **Location and connectivity:** The proposed project is located at Khata no-377,336, Plot No-1270,1123 in Olagada & Tirtol village under Tirtol Tahasil of Jagatsinghpur district bounded by Latitude: N20°18'54.13"to 20°19'10.53"N and Longitude: E86°20'31.03" to 86°21'06.28"E bearing Toposheet no 73L/7. The Nearest railway station is Nimakana Railway Station at a distance of 4km from the project site and nearest airport is Biju Pattanaik international Airport. Bhubaneswar is at about 56 km from the project site.

9. **Total Reserves and proposed production:** As estimated, the proposed production is 23300cum/Year and total production is 116500cum.

As per Approved Mining Plan	
Geological Reserve	Mineable Reserve
110544	88182

10. **Replenishment study details:** Replenishment Study Report has prepared by Drone method Pre-monsoon Survey was conducted on 23.06.2023 and Post-Monsoon Survey was conducted on 28.11.2023 and 7651.82001 cum of sand will be replenished annually. Deposit of sand thickness is 0.4m.

11. **Mining method:** Open cast manual mining method will be adopted for the proposed project with a production capacity of max 23300 m^3/year.

12. **Water requirement:**25 KLD is the total water requirement for the proposed project

S. No.	Particulars	Quantity (KLD)	Source
a)	Dust Suppression (on haul roads etc.)	5.0	Water will be sourced from nearest available source.
b)	Green Belt Development/Plantation	5.0	
c)	Drinking/Domestic & Sanitation	15.0	
Total		25.0	

13. **Baseline study details:** Baseline study of the study area was conducted during pre-monsoon from 1st March 2022 to31st May 2022 for Olagada Mahanadi Sand Quarry.

- **Air Quality:** PM_{10} levels were ranging from 61.2 to 86.5 µg/m^3.$PM_{2.5}$ levels were ranging from 18.6 to 27.7 µg/m^3.SO_2 levels were ranging from 6.9 to 10.3µg/m^3. NO_x levels were found ranging from 10.4 to 15.4 µg/m^3.
- **Noise Quality:** The noise levels varied in the study area during day time from 51.2 dB (A) Leq at Nagapura to 63.5 Leq dB(A) at T-Point where Vehicle Movement is Higher which is increases the noise level. The night time noise level in the study area is in the range of 32.8 (A) Leq at Nagapura Village to 42.9 Leq dB(A) at T-Point because, because Due to surrounding activities of Project site.

- **Ground water monitoring results:** pH ranges from 6.72 to 7.28. TDS in samples ranges from 101 mg/l to 484 mg/l. Total Hardness in the water ranges from 159 mg/l to 269 mg/l. Calcium content in the water ranges from 21.47 mg/l to 40.28 mg/l. Magnesium content in the water ranges from 1.92 mg/l to 6.89 mg/l. Alkalinity in the water samples ranges from 110 mg/l to 231 mg/l. Chlorides range from 9.14 mg/l to 28.93 mg/l.
- **Surface water monitoring results:** All samples were colourless meeting desirable norms (<5 Hazen). All samples meet the desirable standards (pH ranges from 6.98 – 7.86). TDS in samples ranges from 29 mg/l to 98 mg/l. Total hardness in the water ranges from 16 mg/l to 57 mg/l. Calcium content in the water ranges from 3.28 mg/l to 16.38 mg/l, Magnesium content in the water ranges from 1.4 mg/l to 3.97 mg/l, Alkalinity in the water samples ranges from 104 mg/l to 148 mg/l. Chloride ranges from 7.23 mg/l to 9.64 mg/l.
- **Soil monitoring results:** All the samples showed pH in the range from 6.92-7.25. Conductivity of the samples were in the range from 111.2µmhos/cm – 264.1µmhos/cm. Moisture were in the range from 3.43% to 10.55%. Organic Carbon ranges from 0.54% - 1.64%. Organic Matter BDL. Phosphorus in the samples ranges from 0.14 mg/kg- 0.62 mg/kg Total Nitrogen BDL. Potassium in the samples ranges from 150 mg/kg - 299 mg/kg Calcium in the samples ranges from 48.32 mg/kg - 84.31 mg/kg. Magnesium ranges from 12.45 mg/kg – 53.32 mg/kg Chloride ranges from 48.32 mg/kg- 84.31 mg/kg.

14 **Greenbelt development:** 50 trees per year will be planted as greenbelt development for the proposed project.

Year	Number of saplings proposed	Location	Type of saplings
1st Year	50	Plantation is carried out safety zone of the lease area (river bank areas)	Teak, Mango, Jammu, Jhaun, Neem etc.
2nd Year	50		
3rd Year	50		
4th Year	50		
5th Year	50		
Total	250		

15. **Manpower requirement**: For the proposed project,49 persons are required as manpower.

Designation	Number of persons (Olagada Sand Quarry)
Supervisory Personnel/ Statutory Personnel	1
Skilled laborers (Operator and Helper)	8
Semi-skilled Laborer	10
Unskilled Laborer	30
Total	49

16. **Project cost**: The estimated project cost is Rs. 10 lakhs. with EMP Capital Cost of Rs 1, 45,000 and recurring cost of 75,000.

17. **Environment Consultant:** The Environment consultant **M/s Green Circle** Inc., **Gujarat** along with the proponent made a presentation on the proposal before the Committee.

18. The SEAC recommended the following:

19. The SEAC in its meeting held on dated **01-02-2024** recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions and following specific conditions:

    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.

    b) In absence of proper Replenishment Study Report, the SEAC recommended sand for 1st year to a capacity of 60% of annual production capacity as approved in the mining plan

    c) Issues raised in Public Hearing shall be complied by the project proponent.

    d) Sand extraction shall be limited to quantity and depth as per replenishment study report Regular replenishment study as per guidelines to be conducted and report to be submitted.

    e) Provision of Bio-toilet shall be made at the site.

    f) 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.

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

    h) No natural water course shall be obstructed or diverted for the purpose of sand mining.

    i) As per Sand Sustainable Guidelines, 2020, the proponent shall ensure that no mining should be allowed below water level.

20. **The SEIAA in its 157th meeting of SEIAA held on 22.02.2024 and 23.02.2024 observed that the PP has proposed the production quantity of sand of 7651 cum/ annum against the approved quantity of 12753 cum/ annum of sand stated to be replenished as per ARRS report. The SEAC recommended for extraction of sand for 1st year to a capacity of 60% of annual production capacity as approved in the mining plan which is higher than 7651 cum.**

21. After detailed deliberation in the matter, the Authority decided to refer back the proposal to SEAC for re-examination of ARRS report and considered opinion on the same.

22. The SEAC in its meeting held on dated 02-07-2024 observed the following:

    i) SEAC observations as per proceedings dated 01-02-2024 was that the Replenishment Study was not proper.

    ii) Since it is the 1st year mining, SEAC recommended 60% of the quantity as per approved mining plan following all other terms and conditions of sand mining.

    iii) The matter was discussed again and SEAC reiterates its previous recommendations.

23 The SEIAA in its 177th meeting held on dated 28-10-2024 and 29-10-2024 observed that the PP has proposed the production quantity of sand of 7651 cum/ annum against the quantity of 12753 cum/ annum of sand stated to be replenished as per ARRS report. The SEAC recommended for extraction of sand for 1st year to a capacity of 60% of annual production capacity as approved in the mining plan which is higher than 7651 cum. After detailed deliberation in the matter, the Authority decided to refer back the proposal to SEAC for re-examination of ARRS report and recommendation the same. Hence, Proposal is Refer-Back to SEAC for Reconsideration.

24 The SEAC observed the following:

ARRS report is not proper and satisfactory due to following:

a) No benchmark or GCPs are mentioned.

b) As per report most of the lease area was water logged during pre-monsoon survey as compared to post monsoon survey done. Survey could not be processed in water logged area. How the common safe workable area is calculated and how all elevation data etc are obtained is not clear.

c) No error report for drone survey is given.

d) Elevation data shows variation from 6.41 meter to 17 meter which is not at all realistic for the given site.

e) Page 15 para "Common safe workable area: of the replenishment study report of Olagada Tartol Mahanadi sand sairat over an area of 20.00 Acres or 8.09 Ha. mentions that since most of the lease area was waterlogged during pre-monsoon survey as compared to post-monsoon survey, drone survey could not be processed in waterlogged area. In view of above the replenishment study carried out by drone survey is not considered proper.

25. The SEAC in its meeting held on dated 17-12-2024 decided that the PP may be asked to submit fresh ARRS report and a compliance report to the issues raised in public hearing for considering grant of EC. 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	The SEAC recommended that the PP may be asked to submit fresh ARRS report and a compliance report to the issues raised in public hearing for considering grant of EC.	Fresh ARRS report is attached as an Annexure no-1 & compliance report to the issues raised in public hearing is attached as an Annexure No-2.

Considering the information / documents furnished by the proponent and presentation made by the consultant M/s Green Circle Inc., Gujarat on behalf of the proponent, the SEAC recommended for grant of Environmental Clearance valid upto lease period with stipulated conditions as per Annexure – C in addition to the following specific conditions for mining of sand of quantity 9036.6277 cum/annum as per Revised Replenishment Study Report:

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-D.

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.

ITEM NO. 05

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S ARCELORMITTAL NIPPON STEEL INDIA LIMITED FOR REHABILITATION & RESETTLEMENT (R & R) COLONY. THE LAND OF THE PROPOSED PROJECT WILL BE 1609.295 ACRES, AT. VILLAGE NARENDRAPUR, PARADEEP, DIST. - JAGATSINGHPUR OF SRI ARUN KUMAR RATH - EC

1. This proposal is for Environmental Clearance of M/s. Arcelor Mittal Nippon Steel India Limited for Rehabilitation & Resettlement (R & R) Colony. The land of the proposed project will be 1609.295 acres, At. Village Narendrapur, Paradeep, Dist. Jagatsinghpur of Sri Arun Kumar Rath.

2. **Category**: As per EIA Notification, 2006 and its subsequent amendments, the proposed project falls under Category B in Schedule in item 8(b) - Townships/ Area Development Projects / Rehabilitation Centres.

3. **TOR details:** Standard Terms of Reference (ToR) was issued by SEIAA, Odisha vide TOR Identification no. – TO24B3813OR5543968N on dated 27.08.2024.

4. **Location and connectivity:** The project is located on plot no. 675, 676, 677, 678, 679, 680, 681, 682, Village-Narendrapur, Tehsil-Kujang in District-Jagatsinghpur. It is bounded by geo coordinates Latitude: 20° 18' 24.48785"N & Longitude: 86° 34' 53.59629" E bearing Topo-Sheet no. F45U7, F45U8, F45U11, F45U12 of Survey Map of India. The kisam of the land is Chaka, Gharabari, Sarada (ii) (iii) and Gochar. The Paradeep - Chandikhol Road (NH-53) is at 0.84 km from the project site. The Biju Patnaik International Airport, Bhubaneswar is at approximately 83 km from the project site. Nearest water bodies are - Taladanda Canal at 3.161 Km in East direction, Santra Nadi at 3.105 km in SW direction, Kansarpatia Nala at 6.648 km in SW direction, Mahanadi River Up-stream in 9.938 km and Mahanadi River Down-Stream in NE direction at 9.32 km.

5. The proposed project is coming under Paradeep Development Authority.

6. Statutory clearances obtained:
   - Permission obtained from SE; RWS&S Division vide letter no. - 640 dated 19.02.2024 for freshwater requirement of 807 KLD.
   - Power supply permission from OPTCL vide letter no. CP/SS/Industries/93/2023/677 dated 30.12.2023.

7. The total plot area is 622642. 15sq.m (153.84 Ac./ 62.26 Ha.). The total built-up area is 75216.52sq.m.

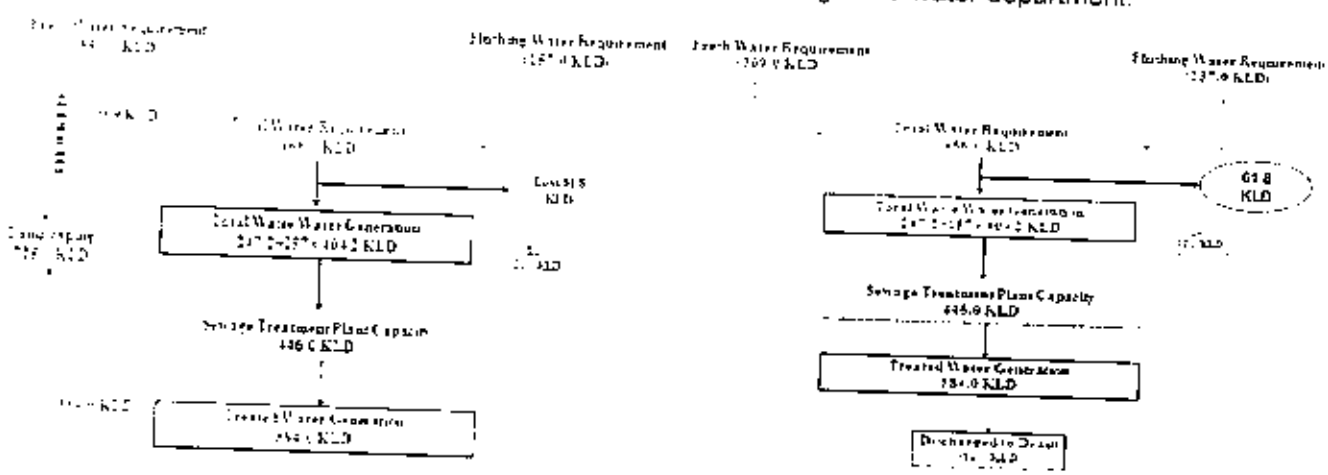
8 **Area Statement:**

Particular	Details
Plot Area	622642.15 sq.mt.
Ground Coverage	73845.3 sq.mt. (11.86 %)
Total Built up Area	75216.52 sq.mt.
FAR	0.12
Maximum Height	8 meters
Road & Paved Area	1,06,385 sq.mt
Parking Area	9788.93 sq.mt.
Green Belt Area	179320.94 sq.mt. (28.8%)
Total Dwelling Unit	667 Nos.

9 **Baseline study details**: The Baseline study was conducted during December 2023 to February 2024.

AAQ Parameters at 08 locations	PM_{10} varied from 48.19 to 71.60 µg/m³, $PM_{2.5}$ from 26.67 to 38.33 µg/m³, SO_2 from 5.02 to 12.05 µg/m³, NO_2 from 9.51 to 17.822 µg/m³ and CO from 0.1 to 0.33 mg/m³.
Surface water quality at 05 locations	pH: 7.30 to 7.94, TDS: 91.2 to 340.6 mg/l, Chlorides: 10.9 to 33.9 mg/l, Fluoride: 0.05 to 0.05 mg/l, Total Coliform: 41 to 110 MPN/100ml
Ground water quality at 05 locations	pH: 8.12 to 8.34, Total Hardness: 100 to 122 mg/l, Chlorides: 41.9 to 59.9 mg/l, Fluoride: 0.05 to 0.05 mg/l, TDS: 197.6 to 302.6 MPN/100ml
Noise levels at 08 locations	47.7 to 51.3 dBA for daytime and 36.6 to 40.6 dBA for nighttime.
Soil quality at 04 locations	Soil Texture: Sandy Loam, Sand: 42- 48.3%, Silt: 15-16.4%, Clay: 36.7-42.3%, Water Holding Capacity: 1.7-2.2%, Porosity: 34.4- 53.8%

10 **Water requirement**: The total freshwater requirement is 807 KLD, which will be sourced from Mega Water supply project of RWSS (Rural Water Supply & Sanitation Division), Jagatsinghpur. No ground water will be extracted during the construction and operation of the proposed project. Hence, no NOC/Clearance is required from CGWA/ State ground water department.



11. **Wastewater Management:** The total wastewater generation is estimated as 404.2 KLD, which will be treated in the STP (FAB Technology), and the treated water will be recycled for landscaping activity. A 446 KLD capacity STP with FAB technology is proposed for the project. During monsoon season, 384 KLD of treated waste water is estimated to be discharged to nearest drain.
12. **Rainwater Harvesting:** Total 11912 cum rainwater will be harvested through 120 no. of recharge pits
13. **Power requirement:** The total power requirement is 2877 KVA, which will be drawn through 33 KV feeder of TPCODL. DG set will only be used during construction phase only and not for power backup purpose.
14. **Solar Power requirement:** The solar power generation and consumption is 159.3 KW, which will contribution 6.9 % towards the total power requirement for the project.
15. **Parking requirement:** Total parking area provided is 9788.93sq.mt. and total no. of ECS provided is 350 and the location of parking area is proposed as open.
16. **Firefighting Installations:** Firefighting facilities will be provided as per NBC Norms
17. **Rain Water Harvesting System –** 175 no. of recharge pits has been proposed to collect rain water of 1699cum.
18. **Solid waste generated and its management:** Total solid waste generation from the proposed project site is estimated as 1651.8 kg/day, which will be segregated at source, where the bio-degradable waste will be composted/ vermin composted at site or through MSW site and used as manure. The non-biodegradable waste is partly sale to authorized recycler/ re-processor and the remaining will be disposed through the municipality.
19. **Greenbelt development**: Greenbelt will be developed over an area of 179320.94 sq.mt , which is 28.8% of the total plot area. Total 4913 no. of plants to be planted in a 3-tier plantation activity.
20. **Project cost**: The total project cost is ₹ 450 Cr and the cost for EMP is 243.1 Lakhs (Capital Cost- 221 Lakhs & Recurring Cost- 22.1 Lakhs).

Source	Capital Cost (In Lacs)	Recurring Cost (In lacs)
Air Pollution Control	40	4.0
Waste Water Management	45	4.5
Water Treatment Plant	35	305
Solid Waste Management	38	3.8
Environmental Monitoring	30	3.0
Greenbelt Development	33	3.3
Total	221	22.1

21. **Environment Consultant:** The Environment consultant M/s Enviro Infra Solutions Pvt. Ltd, Ghaziabad along with the proponent made a presentation on the proposal before the Committee on 27.12.2024.

22 The SEAC in its meeting held on dated **27.12.2024** recommended the following:

A. The proponent may be asked to submit the following for further processing of EC application:

i) Approach road is proposed to the project site after acquisition of the private land. The project proponent shall submit the supporting land documents/ assurance letter from IDCO for acquisition of the project land.

ii) As reported by PP, the project land belongs to IDCO and before conversion of kisam of land to Gharabari, they need to demarcate the area and take necessary permission from GA department for it. The project proponent shall expedite the process of land conversion of Gochar kissam land to Gharbari Kisam.

iii) The project proponent shall submit the NOC for fire safety from Fire deptt. The Fire corridor width is less than prescribed norms, so PP needs to revisit the fire corridor width as per guidelines and resubmit the layout.

iv) The project proponent shall plant cyclone resistant trees in consultation with the concerned DFO.

v) The project proponent shall submit the RLs of the bottom of recharge ponds, rain water recharge pits and ground water table during rainy season.

vi) M/s Arcelor Mittal Nippon Steel India Limited has proposed this project as part of Rehabilitation & Resettlement (R & R) Colony Hence, PP shall submit a brief note on who will handle the implementation part of proposed colony during construction phase and in operation phase who will handle the maintenance part of the proposed colony on context with environment management plan after completion of project.

vii) The PP needs to figure out exact amount of treated waste water discharge to drain/nalla. Permission from concerned drainage division Deptt. to be taken for discharge of treated waste water to drain/nalla

viii) Authenticated map certified from concerned DFO, showing distance of the project from Bhitarkanika wild life Sanctuary and Gahirmatha Sanctuary.

ix) The project proponent shall obtain certificate from State Pollution Control Board, Odisha that the project is not located within Severely Polluted Area (SPA) of Paradeep.

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

i) Environmental settings of the project site.

ii) Verify if the site is a flood prone area.

iii) Construction activity if any started at the site and extent of construction activity.

iv) Road connectivity to the project site

v) The drainage network at the site along with plan of discharging excess treated sewage water and storm water to the nearest public drain.

vi) Discharge point for discharge of treated water and distance of the discharge point from the project site.

vii) Any other issues including local issues.

23. 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.	Approach road is proposed to the project site after acquisition of the private land. The project proponent shall submit the supporting land documents/ assurance letter from IDCO for acquisition of the project land.	The private land coming within the approach road alignment to the R&R colony has been directly purchased by AMNS India, and the allotment letter from IDCO pertaining to the govt. land measuring 0.98 acre vide letter No. IDCO/HO/P&A/LA/E-8936/23 36211, dated 26.12.2024 is attached as Annexure-1.	---
2.	As reported by PP, the project land belongs to IDCO and before conversion of kisam of land to Gharabari, they need to demarcate the area and take necessary permission from GA department for it. The project proponent shall expedite the process of land conversion of Gochar kissam land to Gharbari Kisam.	Necessary permission and procedure to be followed to convert the kissam of land to Gharabari in consultation with IDCO & District Administration. Where the Gochar kissam land is concerned, already the same has been delinked from the project area, which is reducing the total project area from 153.84 Acres to 152.04 Acres (IDCO letter regarding permission for handing over possession is attached as Annexure-2). Hence there is no need of conversion of Gochar land to Gharabari kisam.	---
3.	The project proponent shall submit the NOC for fire safety from Fire deptt. The Fire corridor width is less than prescribed norms, so PP needs to revisit the fire corridor width as per guidelines and resubmit the layout.	Application for recommendation of Fire Safety for the proposed R & R Colony has been submitted to Fire Department on 05.03.2025 vide Application No. FSR11010500420250000001. The Application copy is attached as Annexure-3.	They have applied for NOC for fire safety from Fire deptt.
4.	The project proponent shall plant cyclone resistant trees in consultation with the concerned DFO.	AMNS India has proposed cyclone resistant trees in the proposed R&R Colony. List of cyclone resistant trees is attached as Annexure-4.	Submitted
5.	The project proponent shall submit the RLs of the bottom of recharge ponds, rain water recharge pits and	The water table in the area is at a depth of 1.2 to 1.5 m BGL. The recharge pond depth will be 1m	Submitted

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	ground water table during rainy season.	(approx.) BGL. Rainwater harvesting pit will be connected to the recharge pond.	
6	M/s Arcelor Mittal Nippon Steel India Limited has proposed this project as part of Rehabilitation & Resettlement (R & R) Colony. Hence, PP shall submit a brief note on who will handle the implementation part of proposed colony during construction phase and in operation phase who will handle the maintenance part of the proposed colony on context with environment management plan after completion of project.	As per the letter issued by Revenue & Disaster Management Department, Govt. of Odisha vide Letter No. R&REH-47/10-25975/R&DM, dtd. 17.06.2011, the community assets in the R&R colony such as schools, anganwadis, nurseries, health institutions, burial/funeral grounds, playgrounds etc will be maintained by the Project Authorities for a period of at least 15 years or until their transfer to a govt. department/agency/local body. Health & Family Welfare, Youth & Sports, W&CD, Education etc. will be advised to accept the respective institutions coming under the community assets to be surrendered by the Project Authorities, wherever such arrangements are considered desirable. The letter is attached as **Annexure - 5**. Where the Environment Management Plan (EMP) is concerned, the cost towards implementation of EMP is 243.1 lakhs, in which 221 Lakhs is capital cost and 22.1 lakhs is recurring cost. The entire implementation will bear by AMNS India.	---
7	The PP needs to figure out exact amount of treated waste water discharge to drain/nalla. Permission from concerned drainage division	Total 384.0 KLD treated waste water available after treated in STP & the treated waste water will be reused in landscaping during non-monsoon	They have submitted application to the Collector & District

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	Deptt. to be taken for discharge of treated water to drain/nalla	Season and during monsoon season 384.0 KLD treated water will be discharged to the nearest drain. Letter submitted to the Collector & District Magistrate, Jagatsinghpur vide letter No. AMNS/PDP/PROJ/2025/016, dtd. 26.02.2025 for permission pertaining to discharge of excess treated water & storm water to nearest drain. The letter is attached as Annexure - 6.	Magistrate, Jagatsinghpur for permission for discharge of treated waste water to drain/nalla. Not obtained permission.
8	Authenticated map certified from concerned DFO, showing distance of the project from Bhitarkanika wild life Sanctuary and Gahirmatha Sanctuary.	The distance of Bhitarkanika Wildlife Sanctuary from the proposed R & R colony project boundary is 14.260 km & from Gahirmatha Marine Sanctuary is 19.250 km. The map has been certified by DFO, Mangrove Forest Division (WL), Rajnagar vide letter No. 7077/4F-493/2024, dtd 11.11.2024. Authenticated Map is attached as Annexure-7.	Submitted
9.	The project proponent shall obtain certificate from State Pollution Control Board, Odisha that the project is not located within Severely Polluted Area (SPA) of Paradeep.	In compliance to the ADS point, AMNS India has sent a mail to SPCB, Odisha for certification of proposed R & R Colony project site with respect to SPA (*mail copy attached as Annexure – 8*) However, the proposed project location is coming in SPA boundary of Paradeep. The google image of both i.e., project area and SPA boundary is attached as Annexure – 9 for your ready reference. However, they will abide by the CEPI compliance to the stringent measures stipulated for SPA area.	Certificate not required from SPCB, Odisha as the proposed project is located within SPA

24. The proposed site was visited by the sub-committee of SEAC on **22.02.2025** Following are the observations of the sub-committee:

a) The PP and Consultant were present and explained the site.

b) The site was clean and no construction started.

c) The site was allotted by the govt. authority which the PP will develop into the R&R colony

d) There has been no construction, PP has made the approach road from the main road in the land allotted to them.

e) PP to take adequate care in developing the landscape to avoid artificial flooding.

f) There is a nala near the land, thus, copy of letter for excess treated waste water discharge and storm water discharge to nearest nala, if obtained to be submitted and if not obtained to be taken before construction.

Considering the information furnished and the presentation made by the consultant, M/s Enviro Infra Solutions Pvt. Ltd, Ghaziabad along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per Annexure – E in addition to the following specific conditions.

i) **There is a nala near the land, thus, copy of letter for excess treated waste water discharge and storm water discharge to nearest nala, if obtained to be submitted and if not obtained to be taken before construction.**

ii) The proponent shall abide by the CEPI compliance to the stringent measures stipulated for SPA as per MoEF&CC, Govt of India office memorandum.

iii) 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.

iv) 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.

v) NOC/Permission for discharge of treated water along with storm water to the nearest public drain to be obtained from the appropriate authority including passing the Govt land.

vi) Internal drainage plan with RWH/Re-charge Pits to be taken up based on requirement and with approval of the authority.

vii) Care to be taken in developing land scape to avoid flood situation.

viii) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.

ix) The proponent shall obtain permission from concerned Fire Safety Authority.

x) The commercial block to be used only for the residents of that apartment as mentioned by PP

xi) Trees located within the project area shall be transplanted to alongside the boundary green development area.

xii) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.

xiii) The Project proponent to explore the possibility to install two STPs with aerator to ensure there is no failure in treatment of waste water.

xiv) 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.

xv) 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.

xvi) 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.

xvii) 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. 06

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR BALALANGA STONE QUARRY - A, C, D SUBMITTED UNDER CLUSTER APPROACH FOR MINING OF ONE OVER AN AREA OF 12.148HA. LOCATED IN VILLAGE BALALANGA, TAHASIL - MANESWAR IN SAMBALPUR DISTRICT OF SRI AJAY TIWARI - EC

1. This proposal is for Environmental Clearance for Balalanga Stone Quarry - A, C, D submitted under Cluster approach for mining of one over an area of 12.148ha. located in village Balalanga, Tahasil - Maneswar in Sambalpur district of Sri Ajay Tiwari.
2. **Category**: As Per EIA Notification, 2006 and subsequent amendments the project falls under Category B1 under Schedule of item of 1(a) - Mining of Minerals.
3. The Mining Lease has been granted for Balalanga Stone Quarry A, vide letter no 19, on dated 04.01.2022, Balalanga Stone Quarry C, vide letter no. 1250, on dated 04.08.2022 & Balalanga Stone Quarry D, vide letter no. 1212, on dated 29.07.2022. The Successful Bidder for Balalanga Stone Quarry A is Sri Abanikanta Panigrahy R/o Ainthapalli, Sambalpur. The Successful Bidder for Balalanga Stone Quarry C is Sri Sunil Mohapatra, R/o Dhanupalli, Sambalpur & the Successful Bidder for Balalanga Stone Quarry D is Sri Subhom Mohapatra, R/o Govindtola, Sambalpur.
4. The Mining Plan of Balalanga Stone Quarry has been approved by Deputy Director of Geology, O/o The Joint Director of Geology, Zonal Survey, Sambalpur on dated 04.01.2022

S. No.	Name of Quarry	Lease area (Ha.)	Land Schedule	Kissam
i)	Balalanga Stone Quarry- A	2.355	Khata No- 69 Plot No - 449,803,805, 450(P)	Dungri and Pathar Chattan
ii)	Balalanga Stone Quarry- C	4.977	Khata No- 69 Plot No 817,845(P), 808	Dungri and Pathar Chattan

S. No.	Name of Quarry	Lease area (Ha.)	Land Schedule	Kissam
iii)	Balalanga Stone Quarry- D	4.816	Khata No- 69 Plot No – 414(P)	Dungri and Pathar Chattan
Total		12.148		

5. Mining lease is an identified sairat source in the Revised DSR of Tahasildar Letter No.- 2782 on dtd.- 6/8/2022, Sl. No.- 4 in Annexure-3 of Balalanga- D and in existing DSR Sl. No.- 38 of Page no- 7 of Balalanga-C and Sl. No- 43, Page No.- 8 of Balalanga- A.

6 The Terms of Reference (TOR) has been granted by SEIAA, Odisha on 11th November 2022 through File No SIA/OR/MIN/82451/2022.

S. No.	Name of Quarry	Proponent	Lease Area (Ha.)	TOR Details
i)	Balalanga Stone Quarry- A	Sri Abanikanta Panigrahy	2.355	SIA/OR/MIN/82451/2022 Dated11.11.2022
ii)	Balalanga Stone Quarry- C	Shri Sunil Mohapatra	4.977	SIA/OR/MIN/82451/2022 Dated11.11.2022
iii)	Balalanga Stone Quarry- D	Shri. Subom Mohapatra	4.816	SIA/OR/MIN/82451/2022 Dated11.11.2022
Total			12.148	

7 **Location and connectivity**: This present proposal of Balalanga Stone Quarry A, C & D (under total cluster area 12.148 Ha. of 3 stone quarries) is a stone (road metal) mining project consisting of a stone quarry which is located in village - Balalanga, Tahasil – Maneswar, District - Sambalpur of Odisha. The project is on Khata No.- 69, Plot No.- 449, 803, 805, 450(P) (Balalanga A), Plot No.- 817, 845(P), 808 (Balalanga C) & Plot No.- 414(P) (Balalanga D) and covered in the Survey of India Topo Sheet No. – F45 M3. The geo coordinates are: Latitudes -21° 23' 52.37" N to 21° 23' 43 92" N, Longitudes – 84° 01' 45.68" E to 84° 01' 55.85" E. The Kisam of land is Dungri & Pathar Chalan The Nearest distance of approach road is 2720m The Nearest National Highway is NH-55 which is at a dislance of approx 2 11 km in NE direction. The Nearest State Highway is SH-15 which is at a distance of approx. 4 57 km in SW direction. The Nearest Airport is Biju Patnaik International Airport which is at a distance of approx. 224 km towards SE direction. River Mahanadi which is at a distance of approx. 4.61 km in West direction. The Nearest Reserve Forest is Kendarapat RF, which is at a distance of approx. 3.59 km in NE direction; Baduapali RF, approx.0.70 km in South direction; Jaduloisingh RF, approx.6.27 km in South direction. Nearest road bridge is at a distance of approx 0 81 km from Balalanga Stone Quarry - A. Nearest road bridge is at a distance of approx. 0.70 km from Balalanga Stone Quarry – C & nearest road bridge is at a distance of approx. 0.85 km from Balalanga Stone Quarry - D. Nearest railway bridge is at a distance of 2.67 km from Balalanga Stone Quarry – A, Nearest railway bridge is at a distance of 2.67 km from Balalanga Stone Quarry – C & Nearest railway bridge is at a distance of 2.84 km from Balalanga Stone Quarry - D. The Nearest River Embankment is at a distance of 2.55 Km from Balalanga Stone Quarry – A, The Nearest River Embankment is at a distance of 2.25 Km from Balalanga Stone Quarry – C & The Nearest River Embankment is at a distance of 2.84 Km from Balalanga Stone Quarry - D. The Nearest Electric Transmission Line Pole is at a distance of 1 Km from Balalanga Stone Quarry – A, The Nearest Electric Transmission Line Pole is at a distance of 1 Km from Balalanga Stone Quarry – C & The Nearest Electric Transmission Line Pole is at a

distance of 1 Km from Balalanga Stone Quarry - D. The Nearest Habitation is 0.83 Km in the South direction.

8. **Public hearing** was conducted on 11.04.2023 at 11.00 PM at Kudenisha School Building, Mouza-Balalanga, GP- Batemura, PS- Dhama of Sambalpur District. Provision of drinking water supply and construction of pond near Kudenisha village for bathing purpose were the issues raised during public hearing. Budget allocated for Corporate Environmental Responsibility (CER) of Proposed Tainsar Sand Quarry is Rs.2,80, 000 and Budget for Environmental Protection of whole cluster is Rs. 9,23,200 as capital cost and Rs. 11,30,000 as recurring cost.

9. **Total Reserves and Proposed Production**: The total Geological Reserves for the cluster is 9,58,933cum, Mineable Reserves for the cluster is 5,67,548.40cum. and the Proposed Production for the cluster is 18,800cum/year.

S. No.	Name of the Quarry	Geological Reserves (cum)	Mineable Reserves (cum)	Production (Cum/annum)
i)	Balalanga Stone Quarry - A	2,15,456	1,05,876	2,688
ii)	Balalanga Stone Quarry – C	3,35,189	1,16,946	8,056
iii)	Balalanga Stone Quarry - D	4,08,288	3,44,726.40	8,056
Total		9,58,933	5,67,548.40	18,800

10. **Mining Method**: Mining will be done by opencast semi-mechanized method with adoption of drilling & blasting. Mining will be done by deploying machines like jackhammer, drill compressor, rock breaker, excavator and tractors/trucks. The Proposed depth of mining is 3 Meters as per approved mining plan.

Year	Volume of stone		
	Balalanga Stone Quarry - A	Balalanga Stone Quarry - C	Balalanga Stone Quarry - D
1st	2252	8056	8056
2nd	2318	8056	8056
3rd	2452	8052	8056
4th	2520	8008	8056
5th	2688	8008	8056
TOTAL	12230	40180	40280

11. **Waste generation**: Total waste generated for the cluster is 23,173 cum. Entire waste will be used in construction and maintenance of haulage road of the proposed quarry.

Year	Waste generation (cum)		
	Balalanga Stone Quarry - A	Balalanga Stone Quarry - C	Balalanga Stone Quarry - D
1st	563	2014	2014
2nd	580	2014	2014
3rd	613	2013	2014

4th	630	2002	2014
5th	672	2002	2014
TOTAL	3058	10045	10070

12 Water requirement. Total Water Requirement for the proposed cluster project is 19.252 ~ 19 30KLD

S. No.	Quarry	Round off Figure in KLD
i)	Balalanga Stone Quarry – A	7.30
ii)	Balalanga Stone Quarry – C	4.00
iii)	Balalanga Stone Quarry – D	8.00
Total		19.30

13. Greenbelt development: 1216 Plants are proposed to be planted for the Proposed Cluster.

Year	Green belt Nos.		
	Balalanga Stone Quarry - A	Balalanga Stone Quarry - C	Balalanga Stone Quarry - D
1st year	Excavation for plantation		
2nd year	236	498	482
3rd year	Care & Maintenance		
4th year			
5th year			
Total	1216		

14. Baseline study: Baseline study has been conducted for Post Monsoon Season of 2022 i.e. Oct, 2022 to Dec 2022.

a) AIR ENVIRONMENT

Ambient Air Quality Monitoring reveals that the minimum & maximum concentrations of PM_{10} for all the 7 AQ monitoring stations were found to be 40.24 to 63.79 µg/m³ with the 98th percentile ranging between 54.35 µg/m³ to 60.25 µg/m³.

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 20.28 µg/m³ to 32.42 µg/m³ with the 98th percentile ranging between 26.02 µg/m³ to 32.41 µg/m³.

As far as the gaseous pollutants SO_2 and NOx 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 SO^2 were found to be 7.23 to 14.28 µg/m³ with the 98th percentile ranging between 11.55 µg/m³ to 13.24 µg/m³. The minimum & maximum concentrations of NOX were found to be 9.68 µg/m³ to 19.19 µg/m³ with the 98th percentile ranging between 15.10 µg/m³ to 21.23 µg/m³.

b) WATER ENVIRONMENT

Ground water: Analysis results of ground water reveal the following: -

- pH varies from 7.24 at GW4 to 7.86 at GW1 during study period.
- Total hardness varies from 219 mg/l at GW3 to 265mg/l at GW4 during study period.
- Total dissolved solids vary from 322 mg/l at GW4 to 405 mg/l at GW6 during study period.

Surface water

- The analysis results indicate that the pH ranges between 7.24 and 7.56.
- Dissolved Oxygen (DO) was observed in the range of 6.8 to 7.1 mg/l against the minimum requirement of 4 mg/l.
- BOD values were observed to be in the range of 4.0 - 4.3 mg/l.
- The chlorides and Sulphates were found to be in the range.
- Based on the results it is evident that most of the parameters of the samples comply with 'Category 'C' standards of CPCB indicating their suitability for Drinking water source after conventional treatment and disinfection.

c) **NOISE ENVIRONMENT**

Noise monitoring reveals that the minimum & maximum noise levels at day time were recorded as 48.7 Leq. dB (A) at NQ2 & 59.2 dB (A) at NQ1, respectively. The minimum & maximum noise levels at night time were found to be 37.6 dB (A) at NQ2 & 44.3 dB (A) at NQ1.There are several other sources in the 10 km radius of study area, which contributes to the local noise level of the area. Traffic activities as well as activities in nearby villages and agricultural fields add to the ambient noise level of the area.

d) **SOIL ENVIRONMENT**

Physical characteristics of soil were characterized through specific parameters viz bulk density, porosity, water holding capacity, pH, electrical conductivity and texture. Soil pH plays an important role in the availability of nutrients. Soil microbial activity as well as solubility of metal ions is also dependent on pH. In the study area, variations in the pH of the soil were found to be slightly alkaline (7.23 to 7.64). Electrical conductivity (EC) is a measure of the soluble salts and ionic activity in the soil. In the collected soil samples the conductivity ranged from 274- 320 µmhos/cm.

15. **Manpower requirement**: 50 nos. of persons will be employed for the proposed Cluster.

16. **Project Cost & EMP cost**: The Project Cost is Rs. 20 Lakhs and EMP Cost (Capital cost) is Rs. 3.222 Lakhs and EMP (Recurring cost) is Rs. 4.50 Lakhs for Balalanga Stone Quarry – A The Project Cost is Rs. 60 Lakhs and EMP Capital cost is Rs. 2.146 Lakhs and EMP Recurring cost is Rs. 4.50 Lakhs for Balalanga Stone Quarry-C. The Project Cost is Rs. 60 Lakhs and EMP Capital cost is Rs. 3.864 Lakhs and EMP Recurring cost is Rs. 4.50 Lakhs for Balalanga Stone Quarry – D

Budget for Environmental Protection (Cluster)

S. No.	Measures	Capital Cost (In Rs.)	Recurring Cost (In Rs.)
i)	Pollution Control Dust Suppression /Water Sprinkling	--	6,00,000
ii)	Pollution Monitoring i) Air pollution ii) Water pollution iii) Soil Pollution iv) Noise Pollution	--	50,000 40,000 10,000 10,000
iii)	Green belt development	2,43,200	1,50,000

vi) An Undertaking by the lessee not to use wagon drilling blasting to be submitted. Accordingly, specific condition to be stipulated in EC of individual lease.

vii) No storage and usage of blasting materials/explosives inside the lease area without license/permission/authorization from competent Authority as per Indian Explosives Rules, 1983 shall be ensured by the lessee. An undertaking to this effect shall be submitted by the lessee. Accordingly, specific condition to be stipulated in EC of individual lease.

viii) An undertaking to obtain NOC from CGWA and permission from WR department, Govt. Of Odisha for use of ground water. Accordingly, specific condition to be stipulated in EC of individual lease.

b) **Following specific conditions shall be stipulated in Environmental Clearance for individual lease:**

i) The lessee shall not use wagon drilling blasting.

ii) No storage and usage of blasting materials/explosives inside the lease area shall be permitted.

iii) The proponent shall obtain NOC from CGWA and permission from WR department, Govt. Of Odisha for use of ground water.

iv) The project proponent shall maintain periodic health check-up records of their employees and ensure use of face mask by workers in crushing and handling sections of the stone quarry for ensuring that working personnel are not affected by silicosis.

v) The project proponent shall undertake re-grassing of the area or any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for fodder, flora, fauna etc. after ceasing mining operation that is at the time of mine closure.

vi) Haulage road shall be developed and maintained perennially and perpetually by the proponent in consultation with the concerned authority of the Govt.

vii) Detail risk and hazard management procedure as per the Annexure – G shall be followed by the lessee.

24/04/25

MEMBER SECRETARY, SEAC

ANNEXURE - A

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S D.N. HOMES PVT. LTD FOR LIG RESIDENTIAL APARTMENT AT PLOT NO- 156, 157, 160, 161, 162, 163, 164, 165, 166, 167 & 170 OF HAL KHATA NO.- 855 TOTAL BUILT-UP AREA 42,371.18 M2. OF MOUZA - BARAMUNDA, TEHSIL- BHUBANESWAR, DIST- KHURDA OF SMT. RATNAMALA SWAIN - 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 fire fighting 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 222 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

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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 11 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

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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 350 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.

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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.

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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 m^2 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. 3370.37 sq.mt. (28.37 % of net 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.

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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

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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

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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, SO_2, 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.

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CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S BUILDERS CONSORTIUM TRIDEV FOR PROPOSED RESIDENTIAL COLONY PROJECT WITH TOTAL BUILT-UP AREA 99, 184.48M² AT MOUZA- PRATAPNAGARI, DISTRICT-CUTTACK OF SRI CHETAN KUMAR TEKARIWAL - 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 fire fighting 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 247 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.

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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 09 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.

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SEWAGE TREATMENT PLANT

24. Sewage shall be treated in STP of capacity 350 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.

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

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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

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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 m^2 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. 7071.69 sq.mt. (43.76 % of net 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.

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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

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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.

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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, SO_2, 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.

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ANNEXURE- C

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

Stipulated Conditions:

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

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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 OSPCB along with the compliance report.

16. The proponent shall take necessary measures to ensure that there is no adverse impact of the mining operations on the human habitation if any, existing nearby.

17 It shall be mandatory for the project management to submit quarterly compliance reports on the status of implementation of the above stipulated environmental safeguards to the SEIAA, Odisha / SPCB, Odisha/ Regional Office of the MoEF&CC, Bhubaneswar, in hard and soft copies on 1st day of January, April, July, October of each calendar year, failing which EC is liable to be revoked.

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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.

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Annexure - D

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": 1/4the part of the river width (excluding 3/4the central part of the river width) on both sides of the river towards the river bank	4.1.1 (Para - e) Page - 16
2.	a) Distance between two clusters : ≥2.5 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: 1/4th of the river width, But subject to not less than 7.5 meter	4.31 (Para - m) Page - 24
7.	Area for removal of minerals : ≤60% of mine lease area	4.3 (Para - s) Page - 25
8.	Minable sand per ha. Available for actual mining : ≤60,000 MT/Annum	
9.	Regular replenishment study and replenishment rate	

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CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S ARCELORMITTAL NIPPON STEEL INDIA LIMITED FOR REHABILITATION & RESETTLEMENT (R & R) COLONY, THE LAND OF THE PROPOSED PROJECT WILL BE 1609.295 ACRES, AT. VILLAGE NARENDRAPUR, PARADEEP, DIST. - JAGATSINGHPUR OF SRI ARUN KUMAR RATH - 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 807 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

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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 175 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

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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 446 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.

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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

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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 m^2 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. 179320.94 sq.mt. (28.8 % of net 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.

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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.

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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

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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

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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, SO_2, 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.

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ANNEXURE - F

SPECIFIC CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE OF INDIVIDUAL MINING LEASE OF BALALANGA STONE QUARRY - A, C, D SUBMITTED UNDER CLUSTER APPROACH FOR MINING OF ONE OVER AN AREA OF 12.148HA. LOCATED IN VILLAGE BALALANGA, TAHASIL - MANESWAR IN SAMBALPUR DISTRICT OF SRI AJAY TIWARI - EC.

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

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12 The lessee shall obtain NOC from CGWA and permission from WR department, Govt. Of Odisha for use of ground water.

13. The lessee shall complete the rejuvenation of ponds if any within lease area on priority basis after obtaining Environment Clearance.

14. No mining activities shall be allowed in forest area, if any, for which the Forest Clearance is not available.

15 No change in mining technology and scope of working should be made without prior approval of the SEIAA, Odisha.

16. No change in the calendar plan including excavation, quantum of mineral and waste should be made.

17. Mining shall be carried out as per the provisions outlined in the approved mining plan.

18. Protection of vegetation in the surrounding areas, and proper storage of solid waste, subgrade ore and their use have to be given priority during mining operation.

19. The illumination and sound at night at the lease area disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. Project Proponents must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.

20 Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.

21. The soil to be generated during mining activity shall be stacked in the earmarked temporary soil stack and shall be utilized for the plantation purpose to be undertaken around the respective hill/patch and adjacent to haul roads of the same in lease area.

22. The abandoned mine pit shall be converted to rain water storage tank and the rain water stored in pit shall be utilized for plantation as well as dust suppression.

23. Total Plantation shall be carried out within 2-3 years of mining activity and maintenance shall be continued in remaining years. Trees present in mining area shall be uprooted & transplanted in safety zone.

24. All the lease holders in a cluster to join hand through a registered MOU on cluster to cluster basis for laying of permanent pipeline by the side (one side) of the main haulage road with half-moon automatic sprinklers system for suppression of dust during movement of vehicles.

25. All the lease holders in a cluster should join hand for grading of the main haulage road to maintain the gradient facilitating smooth movement of vehicles

26 The same cluster approach to be taken for development of green belt all around the cluster area baring catch dams for flow of runoff water during rainy season. These activities may be coordinated by the leadership in the cluster leases or RQP for the cluster with help from Revenue Inspector of the area for better results.

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27. The SEIAA, Odisha may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

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

29. The above-mentioned stipulated conditions shall be complied in a time-bound manner. Failure to comply with any of the conditions mentioned above may result in cancellation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

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5.5. HAZARDS AND RISK MANAGEMENT

5.5.I Explosives

Blasting is done by means of explosives which are hazardous during of handling, storage and blasting.

5.5.1.1. Storage and Handling

The Applicant is advised to store the explosives as per the Indian Explosives Act, 1958 and the Explosive Rules, 1983. Necessary permissions should be obtained from the Joint Controller of Explosives to store and uses of explosives in the quarry in the magazine permit under Form - 23 or Agreement shall be made with holder of Form - 22 who can supply and fire explosives as per safety practices. However blasting in the mine or quarry shall be done as per the MMR, 1961 under the supervision of Mines Blaster certificate holder, appointed under Reg. 160 of Metalliferous Mines Regulations, 1961.

5.5.1.2. Blasting

Poorly designed shots can result in misfires early ignition and flying rock. Safety can be ensured by planning for round of shots to ensure face properly surveyed, holes correctly drilled, direction logged, the weight of explosion for good fragmentation. Blast design, charge and fire around of explosives should be carried out by a trained person.

5.5.1.3. Drilling

Slipping and Falling of labours from the edge of a bench during drilling is possible. Part of training should include instructions to face towards the open edge of the bench so any inadvertent backward step is away from the edge. Suitable portable rail fencing which can be erected between the drilling operations and the edge of the mine can be provided. Attachment of a safety line to the drilling rig and provide harness for the driller to wear can be done. Newer drill machines are provided with cabin which controls noise level within cabins. Driller operators should be protected with ear protection.

5.5.2. Loading

Possible risks during loading of mined rocks are falling of rock on the driver, plant toppling aver due to uneven ground, failure of hydraulic system, fires, fall while gaining access to operating cabin, electrocution in Draglines, failure of wire ropes in Dragline. In order to overcome these risks:

- Operator cabin should be of suitable strength to protect the driver in event of rock fall.
- Electrical supply to dragline should be properly installed with adequate earth continuity and earth leakage protection.
- Wire rope should be suitable for work undertaken and be examined periodically.
- Ensure that loaders are positioned sufficiently away from face edges

5.5.3. Transportation

Brake failure, lack of all-around visibility from driver position, vehicle movements particularly while reversing, rollover, Vibrations, Noise, Dust and improper / no signalling are some of the factors causing risk. This can be avoided by following measures:

- Visibility defects can be eliminated by the use of visibility aids such as closed circuit television and suitable mirrors.
- Edge protection is necessary to prevent inadvertent movement.
- Seatbelt to protect driver in event of vehicle rollover.
- Good maintenance and regular testing necessary to reduce possibility of brake failure.
- Avoid driving at the edge of roadway under construction
- Heavy earth moving equipment and vehicle drivers and those giving signals should be well trained.

5.5.4. Unstable face

Chances of Rock fall or slide exists. Regular examination of face must be done and remedial measures must be taken to make it safe if there is any doubt that a collapse could take place. Working should be advanced in a direction taken into account the geology such that face and quarry side remain stable.

5.5.5. General safety measures

Provisions of the Mines Act, Rules and Regulations orders made there under shall be complied with, so that the safety of the mine, machinery and persons will be ensured. Permission, relaxation or exemption wherever required for the safe and scientific mining of the deposit will be obtained from the Department of Mine Safety. Copy of Agreement for handling of Explosives under License Holder at Proposed site is given in additional document.

- Safety kits should be located in easily accessible place with major first aid materials in it.
- Entry of any unauthorized person into mine and plant areas shall be completely prohibited
- Arrangements for fire fighting in the mine's office complex and mining area

- Provision of all the safety appliances such as safety boot, helmets, goggles, ear plugs etc. shall be made available for the employees
- Mining will be undertaken in coexistence with the requirements of the Mining Plan which shall be updated from time to time
- Handling of explosives, charging and blasting shall be undertaken only by a competent person
- Adequate safety equipment shall be provided at the explosive magazine

All the mining equipment shall be maintained as per the guidelines of the manufacturer.