

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE, ODISHA HELD ON 19TH MARCH, 2021**

The SEAC met on 19th March, 2021 at 03:00 PM in the Conference Hall of Odisha State Pollution Control Board, Bhubaneswar under the Chairmanship of Sri B.P. Singh. The following members were present in the meeting.

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| 1. Sri. B. P. Singh | - | Chairman |
| 2. Dr. D. Swain | - | Member |
| 3. Sri. J. K. Mahapatra | - | Member |
| 4. Prof. (Dr.) B.K. Satpathy | - | Member |
| 5. Er. K.R. Acharya | - | Member |
| 6. Dr. K.C.S Panigrahi | - | Member |

CONSIDERATION OF OLD PROPOSALS (COMPLIANCE RECEIVED):

A. PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S HINDUSTAN MINERAL INDUSTRIES FOR KANTRABALI DECORATIVE STONE MINES OVER AN AREA OF 7.42 ACRES OR 3.003 HA. AT VILLAGE - KANTRABALI, TAHASIL - MUNIGUDA, DISTRICT - RAYAGADA OF SRI. HEMANTA KUMAR ROUT - EC

1. This is a proposal for Environmental Clearance of of M/s Hindustan Mineral Industries for Kantrabali Decorative Stone Mines over an area of 7.42 acres or 3.003 Ha. at village - Kantrabali, Tahasil - Muniguda, District - Rayagada of Sri. Hemanta Kumar Rout.
2. The project falls under Category "B", Project or Activity 1 (a), B2 (New Mines) Lease area <5.0 Ha (Minor Minerals) as per schedule of EIA Notification dated 14th Sep, 2006, as amended from time to time.
3. The Kantrabali Decorative mining lease area for mining of decorative stone (garnet ferrous Granite Gneiss) over an area of 3.003 Ha or 7.42 Acres was granted by the Department of Steel & Mines, Government of Odisha vide Letter No.7602/S&M, Bhubaneswar dated 04.10.2019 for a period of 30(thirty) years in favour of M/s Hindustan Minerals Industries, Sole Prop: Sri Hemanta Kumar Rout, Plot No.613/4132, Punama Gate, Old Town, Bhubaneswar-751002.
4. The Mining Plan along with the PMCP was approved by Joint Director of Mines, Director of Mines, Odisha, Bhubaneswar vide Letter No. MXXII-(a) 5/2019/5085/DM on dated 23.07.2020 for a period of five year
5. The applied mining lease area of mining lease area is a part of the area covered in the Survey of India Toposheet no. E44F10 & E44F6 and is bounded by Latitude: 19° 39' 38.72" N to 19° 39' 51.20" N and Longitude-83° 32' 41.30"E to 83° 32' 53.10"E. The entire ML area bearing Plot No.643/P, Khata No.114 is a hilly waste land under the kissam "Patharbani" and the tenant is 'Abada Ajogya Anabadi' of Govt.of Odisha. The lease area is accessible from Muniguda at a distance of about 10Km by metalled road towards south. The nearest State Highway is SH-5 is 4.0km and nearest railway station is at Muniguda, located at a

distance of 7.0 km. Village Kantarabali is at a distance of 1.0km from to the mining lease area. Village Bad Agula is at a distance of 2Km from the ML area where all infrastructure facilities like hospital, school, bus service, market is available. Bhubaneswar airport is at a distance of 246 km from the lease area. Nearest Reserve forest is Nialai is 2.5km. Nearest River is Bansadhara at 1.5km.

6. The geological reserves in the area are 178760cum (@ 40% recoveries) which includes 66100cum (proved), 58120 cum (probable) & 54540cum (possible) reserves respectively for decorative stone. The mineable reserves in the area are estimated to be 94180 cum (@ 40% recoveries) which includes 50320cum (proved), 43860cum (probable) reserves respectively for decorative stone.
7. The lessee has planned to mine decorative stone by opencast semi mechanized method with the deployment of machines like L/D bore machines, jack hammer drill, compressor, hydraulic excavators & tippers. The major activities of mining will include removal of waste material, block cutting/splitting, dressing, loading & transportation. Decorative stone will be produced in the form of blocks/khanda stone from 2200cum in the first year with gradual increment upto 2620cum in the fifth year of the current plan period. However, the proposed rate of production will be 3000cum per annum of saleable decorative stone after the quarry is fully developed.
8. At the end of the conceptual plan period, it is estimated to produce/generate a total ROM of 187500cum, waste 75000cum, non-saleable stone 37500cum & decorative stone 75000cum.
9. **Green Belt:** During the plan period, about 200saplings of local species (Mango, Neem, Mahaneem, Amla, Bahada, Jamun, etc) will be planted over an area of 0.751 Ha in 7.5m wide safety zone along the lease boundary.
10. **Water Requirement:** Total water requirement for the project is estimated to be 5 KLD out of which 2 KLD will be required for drinking and domestic purpose, 1.5 KLD for dust suppression and 1.5 KLD for plantation purpose. Source of domestic water will be tube well.
11. **Employment Potential:** The mining activity will generate employment for 26nos of personnel, skilled 7nos, semiskilled 11nos, unskilled 4nos & 4nos management staffs).
12. The project cost is ` 150 lakhs and cost of EMP is Rs.350000.
13. The Environment consultant **M/s Kalyani Laboratories (Pvt) Ltd. Pahala, Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee.
14. The SEAC in its meeting held on Dt: 14.10.2020 decided to take decision on the proposal after receipt of the following information / documents from the proponent.
15. The project proponent has furnished compliances as desired by the committee vide letter no: Nil dated 03.02.2021 and same has been verified as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
(i)	Detailed composition of waste generated and top soil	The lease area is devoid of any top soil. Photograph of the lease area attached. The waste material analysed and the report attached as Annexure 1	-----
(ii)	Details of Haulage road construction and maintenance	The haul road of 0.7 Km will be constructed and maintained by the lessee. The haul roads connect to the Panchayat road which finally meets to SH 5. An amount of Rs.1,00,000.00 has been allocated for construction of haul road and Rs.50,000.00 will be allocated for maintenance of the road.	-----
(iii)	Details of waste management	Detail waste management practice attached as Annexure 2	-----
(iv)	Details of no. of vehicles to be used and its operation time	Production of decorative stone per annum – 2620 Cu.m/ Annum. Production per day = 9 cu.m Capacity of Truck = 6 Cu.m So 2 trucks will be required per day for transportation of decorative stone to the user agency.	-----
(v)	Details of silt management in monsoon period	The silt from the lease area will flow with the rain water follow the slope towards north east side of the lease area. A settling pit will be constructed in the North East boundary with dimension 20mx20m x5m with capacity 2000 cu.m. The runoff from the lease area will pass through the settling tank and after settling of the silt the clean water will flow out side the lease area.	Specific condition to be stipulated in Environmental Clearance to arrest and use water after settling pond and store in rain water harvesting pond for use in non-monsoon season.
(vi)	Layout showing location of rain harvesting recharging pits and quantity to be harvested	The map showing the location of rain water harvesting pond and recharge pits has been given as Annexure 3	-----
(vii)	Layout showing garland drains and settling pond design	Layout map of the lease area showing the garland drain and settling pond attached Annexure 4	-----
(viii)	Details of type of land use in north east side, cropping pattern of the area, types of land	The north eastern side of the lease is mostly agricultural waste land. There is no crop growing with in 100m from the lease area.	-----
(ix)	Map showing lease area and dams under	There is no dam under construction within 10 Km from the lease area. So	-----

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	construction	there will no impact of the proposed mining on any structure as the project does not include any blasting activities.	
(x)	Periodically testing of water accumulated in lease area and surface runoff	With the commencement of the mining activity the analysis of mine drainage water will be carried out. The test report will be submitted to SEIAA, with the half yearly compliance report.	-----
(xi)	Increase in no. of tree plantation for dense safety belt	Revised green belt plan attached Annexure 5	-----
(xii)	Certificate from mining officer about details of other mines located within 500 meter periphery of the mine	Attached as Annexure 6	-----
(xiii)	Copy of lease deed issued by Steel and Mines Department, Govt. of Odisha	Copy of the lease deed attached Annexure 7	-----
(xiv)	The road to which and where the haulage road intersects	Details of the road connecting the main road i.e. SH 5 is given in the map. Attached Annexure 8	-----
(xv)	Any plan for (ZLD) or discharge is there and if so, where it will be discharged	There will no generation of waste water due to the proposed mining activity. Only runoff water during rainy season will follow the slope and after settling this water will be flow outside the lease area through natural drain.	Specific condition to be stipulated in Environmental Clearance to arrest and use water after settling pond and store in rain water harvesting pond for use in non-monsoon season.

Considering the information furnished and the presentation made by the consultant, **M/s Kalyani Laboratories (Pvt) Ltd. Pahala, Bhubaneswar** along with the project proponent, the SEAC recommended for grant of Environmental Clearance with stipulated conditions as per **Annexure –A**.

B. PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR KHEMABEDA DECORATIVE STONE QUARRY OVER AN AREA OF 12.21 ACRES OR 4.941 HA. IN VILLAGE KHEMABEDA TEHASIL- BAIPARIGUDA IN THE DISTRICT OF KORAPUT OF SRI HOTHAVENKATESH – EC

1. This is a proposal for Environmental Clearance for Khemabeda decorative stone quarry (Dolerite/Black Granite) over an area of 4.941 Ha or 12.21 Acres is located in the village Khemabeda, Tahasil Baipariguda, District Koraput, Orissa, in favour of Sri. Hotha Venkatesh.

2. As per the EIA Notification S.O. 1533, dated 14th September 2006 and subsequent amendments, this project falls under Category B2.
3. The applied mining lease is granted by Department of Steel & Mines, Govt. of Odisha vide Letter No.6534/ IV (DS) SM-10/2017/S&M, Bhubaneswar, on dated 05.09.2019 in favour of Sri Hotha Venkatesh for 30 years.
4. Mining Plan for a period of five years was approved by Director of Mines, Odisha, Bhubaneswar vide letter no. MXXII-(a) 9/2019/5089/DM on dated 23.07.2020.
5. **Location and Connectivity** - The area of mining lease area is located in the Survey of India Toposheet no. 65J/6 (E44K6), latitude 18°38'13.9"N to 18°38'21.8"N & longitudes 82°24'18.6" E to 82°24'26.8"E. The land use pattern of the mining lease area comes under the non forest agricultural land (Abada Ajogya Anabadi), bearing Khata no.315, Plot no. 1355 (0.348 Ha), 1356 (3.358 Ha) & 1360 (1.235 Ha) and Kissam: Parbat. The applied area is a part of the revenue village Khemabeda no.200 covers 4.941 Ha or 12.21 Acres under Baipariguda Tahasil, District Koraput Odisha. The nearest railway stations is Koraput Railway Station at an aerial distance of 37 Km. The lease area can be approached from NH: 43 & SH: 25 at a distance of 36 Km & 6 Km, nearest Airport is Jey pore Airport which is at a distance of 85 Km. Kolab Reservoir at 20km, Dasmatpur RF at 5km. Nearest town is Boipariguda – 10km, Jeypore – 29km and Inter state boundaries is at 13km. The drainage pattern of the area is dendrite. As the region shows an undulated hilly topography, there is neither any seasonal nor any perennial nalla flowing within the applied mining lease area.
6. **Method of Mining** - There will be excavation of decorative stone from the lease area through opencast semi mechanized mining method. The height of the benches will be 3m & the slop of the benches will be maintained at 70°-80°. The overall slope of the quarry will be less than 45° with the horizontal. As per the estimation the geological reserve is found to be 1933184 m³ (proved 1732706 m³, probable 150434 m³ & possible 50044 m³) & Mineable reserve for decorative stone is found to be 1417270 m³ (proved 425181 m³, probable 992089 m³). The details of the proposed production during the plan are given below the table.

Table No.1.1 Details of the proposed production during the Plan Period

Year	Total volume of Excavation (m ³)	Volume of Marketable Decorative stone (m ³)	Volume of Non-saleable Decorative Stone (m ³)	Volume of Swelled Waste (m ³)
1 st Year	13332	4000	667	12964
2 nd Year	13332	4000	667	11780
3 rd Year	13332	4000	667	11266
4 th Year	13333	4000	667	11369
5 th Year	13334	4000	667	11523
Total	66,663	20,000	3,335	58,902

7. **Waste generation and utilization** - During the total rock mass of 45309m³ of waste (in-situ) & 58902m³ of waste (swollen) will be generated during the plan period. These

wastes will be utilized con-currently for construction & maintenance of road in the lease area. For temporary storing of these wastes, 0.944 Ha of area has been earmarked in southern part of the mining lease area.

8. **Green Belt** - There will be proposed for green belt development over an area of 0.6520 Ha in and along the periphery of the quarry lease area of during the plan period by 500 nos. of saplings for rehabilitation.
9. **Water Requirement** - Total water requirement for the project will be 5 KLD out of which 2 KLD will be required for drinking and domestic purpose and 1.5 KLD for dust suppression and 1.5 KLD for plantation purpose. Source of domestic water will be nearby village well.
10. **Power Requirement** - Power Requirement will be met through DG sets.
11. **Employment Potential** - The mining activity will generate employment for 25nos of from which 08nos skilled worker, 12nos unskilled worker & 5nos managerial staffs.
12. The project cost is ` 200 lakhs.
13. The Environment consultant **M/s Kalyani Laboratories (Pvt) Ltd. Pahala, Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee.
14. The SEAC in its meeting held on Dt: 12.01.2021 decided to take decision on the proposal after receipt of the following information / documents from the proponent.
15. The project proponent has furnished compliances as desired by the committee vide letter no: Nil dated 26.02.2021 and same has been verified as follows:

SI. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
(i)	Certificate from the concerned Mining Officer about the geo-coordinates and other mines located within 500 meter from the periphery of the lease boundary	Certificate obtained from concerned mining officer regarding the geo-coordinates and other mines located within 500m from the periphery of the lease boundary (Copy attached Annexure 1)	----
(ii)	Distance of the nearest habitation / village (s) etc. from the lease boundary duly certified by the concerned Tahasildar including school and hospital and measures for decongestion and avoiding possibility of any accident	Certificate from Tahasildar, Boipariguda attached Annexure 2	----
(iii)	Details of waste management i.e., quantity to be used, stored and the waste composition including	<ul style="list-style-type: none"> • Waste generated during the plan period: 45309Cu.m • Swell Volume: 58902 Cu.m • Area allocated for waste 	----

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	<p>details of provision with design of Garland drain, retaining wall and Settling tanks</p>	<p>dumping: 0.944 Ha</p> <ul style="list-style-type: none"> • Height of waste dump: 3 m • Dimension of Garland Drain around dump: 400m x 1m x 1m (L x B X D) • Dimension of Retaining wall: 400m x 1m x 1m (L x H x W) South and Western side of dump. • Location of waste dump: 645 mRL • During the total rock mass of 45309m³ of waste (in-situ) & 58902m³ of waste (swollen) will be generated during the plan period. These wastes will be utilized con-currently for construction & maintenance of road in the lease area. • Quantity of waste utilized for haul road construction (500 m stretch x 6m width): 3000cu.m • Waste utilization for Construction of connecting road to mine site (2000m x 10m): 20000cu.m <p>The waste from the mines was analysed and the test report attached. Annexure 3</p>	
(iv)	<p>NOC from concerned competent authority for usage of road for transportation of minerals including SOP for Perennial maintenance of the same</p>	<p>Permission from Sarpanch has been obtained and copy attached as Annexure 4.</p> <p>The decorative stone will be transported through panchayat road to SH 25 through 7.5 Km.</p> <p>Daily transportation of decorative stone will be 13 Cu.m per day which require only two trucks for transportation of stone to the user agency. The road of about 2.5 Km will be constructed by the lessee and the panchayat road of 7.5 Km will be regularly maintained by the</p>	<p>Specific condition to be stipulated in Environmental Clearance that permission of Sarpanch to be validated by BDO. Validation to be submitted within one month of issue of Environmental Clearance. A legal affidavit to this effect shall be submitted by the lessee.</p>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		lessee. A fund of 3,00,000 has been demarcated for maintenance of the panchayat road.	
(v)	Plantation on both sides of approach road and its maintenance	Plantation will be carried out on both side of the road through a stretch of 2.5 Km. 2500 saplings of Mango, Neem, Teak, Simarouba, Chakunda, Jamun, Tamarind will be planted and maintained by the lessee. Details in compliance report.	-----
(vi)	Zero discharge from lease area to be maintained	There is no proposal for use of water in the process of mining. Water required only for dust suppression, plantation and drinking purpose. During monsoon period surface runoff around the quarry and dump near the natural drains will follow the garland drains to arrest the eroded sediments, which shall pass through a series of garland drains before being discharged to the natural drainage system. From the analysis of waste material from the lease area it has been found that there is no contamination due to the dumping of waste material.	Specific condition to be stipulated in Environmental Clearance that the proponent shall provide rainwater harvesting pond for storage of water discharged through settling pond and use it for plantation in non-monsoon season.
(vii)	In case village / any habitation is very nearby, plan to ensure safety of human life and livestock from accidents be submitted	As per the Tahasildar certificate and confirmed by satellite imagery the nearest habitation is Khemabeda village which is located at a distance of 1.0 Km from the lease area. The mining does not involved any blasting operation as this create cracks in decorative stones. So impact due to blasting on the human population is not envisaged. The dust and noise pollution due to the proposed mining operation will be limited to the lease area and 100m from the boundary of the lease where there is no existing habitation. During rainy season the water flows through the lease area will pass through garland drain and settling tank and finally discharged to the natural drainage system. So	----

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		the impact on mining on the nearby human habitation is very negligible.	
(viii)	Number and type of vehicles to be engaged per day and their frequency of plying	Daily transportation of decorative stone will be 13 Cu.m per day which require only two trucks for transportation of stone to the polishing unit.	----
(ix)	Certificate from the concerned DFO / Tahasildar that there is no DLC land involved in lease area. Distance of the mines from the boundary of the Notified Eco-Sensitive Zone / Wildlife Sanctuary if any	Certificated from DFO regarding no involvement of DLC land within the lease area attached. The nearest notified eco-sensitive zone is Kangar-ghati National park, Chattishgarh which is located at a distance of 35 Km from the lease area. Satelite map showing the distance attached. Annexure 5	----
(x)	Certificate from the concerned mining officer that the mine has not operated earlier and this is a new mine	Certificate from Mining officer attached Annexure 6	---
(xi)	NOC of Panchayat for usage of haulage road/Panchayat road	NOC from Panchayat for use of haulage road attached Annexure 4	Specific condition to be stipulated in Environmental Clearance that permission of Sarpanch to be validated by BDO. Validation to be submitted within one month of issue of Environmental Clearance. A legal affidavit to this effect shall be submitted by the lessee.
(xii)	Green Belt Plantation should be completed within 2 years and maintenance to be carried out in remaining years. A detailed proposal to this effect shall be submitted including trees existing in mining area need to be uprooted and re-rooted/planted in safety	There are no existing large trees within the lease area. Further there are few saplings of Neem, Kumbhi, Kerua and Tamarind, which will be uprooted and planted along the boundary of the lease area in the safety zone. I am committed to protect all the tree species present in the lease area. I will complete the safety zone plantation within the two years of mines working.	----

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	zone		
(xiii)	Surface water quality management of nearby water bodies to get rid of contamination / pollution	There is no proposal for use of water in the process of mining. Water required only for dust suppression, plantation and drinking purpose. During monsoon period surface runoff around the quarry and dump near the natural drains will follow the garland drains to arrest the eroded sediments, which shall pass through a series of garland drains and settled in the settling tank before being discharged to the natural drainage system. From the analysis of waste material from the lease area it has been found that there is no contamination due to the dumping of waste material.	----

Considering the information furnished and the presentation made by the consultant, **M/s Kalyani Laboratories (Pvt) Ltd. Pahala, Bhubaneswar** along with the project proponent, the SEAC recommended for grant of Environmental Clearance with stipulated conditions as per **Annexure – B**.

C. PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S CHROME SAGAR FOR CHROME ORE BENEFICIATION UNIT OF THROUGHPUT CAPACITY 18,500 TPA & REFRACTORY MIX PLANT, AT VILLAGE PUBALA, DISTRICT OF JAJPUR, ODISHA - EC

1. This is a proposal for Environmental Clearance of of M/s. Chrome Sagar for Chrome Ore Beneficiation Unit of throughput capacity 18,500 TPA & Refractory mix plant, at village Pubala, district of Jajpur, Odisha of Sri Rajendra Kumar Thatoi.
2. The project falls under Category 2 (b), B2 (Throughput <20,000 TPA) as per schedule of EIA Notification dated 14th Sep, 2006, as amended from time to time.
3. The proposed expansion project is for additional installation of chrome ore beneficiation unit with throughput of 18500 TPA within the existing campus of M/s Chrome Sagar at Vill: Pubala, P.O. Sukinda, Dist: Jajpur, Odisha.
4. The existing project for production of Chrome mortar and Chrome monolithic and again obtained Consent to establish for the existing chrome monolithic unit and Chrome refractory mortar of 12,000 TPA capacity obtained from Odisha state pollution control Board vide letter no. 1482/KNG/IND-266 dated 09.08.2019 and Consent to Operate for the unit has been obtained vide letter no. 1687/KNG/IND-266 dated 07.09.2019

5. ToR was issued vide Online Proposal No: SIA/OR/IND/48689/2019 and SEIAA File No: 48689/09-IND/12-2019. The presentation at SEAC, Odisha for approval of ToR was held on 29.01.2020 and ToR Approved Vide letter no: 8365/SEIAA dated 17.07.2019. Application for Environment Clearance was made on 21.08.2020.
6. The proponent has applied to consider their project as Category-B2 as per MoEF&CC, Govt. of India O.M. No. J/13012/12/2013-IA-II(I), dated 24.12.2013 as throughput of Mineral Beneficiation activity is less than 20,000 TPA involving only physical beneficiation.
7. The MoEF&CC, Govt. of India O.M. No. J/13012/12/2013-IA-II(I), dated 24.12.2013 stipulates the Mineral Beneficiation activity listed in the schedule as Category-B will be treated as Category-B2 with throughput \leq 20,000 TPA, involving only physical beneficiation.
8. The total land of M/s Chrome Sagar is 2.2 Acres which is purchased by the project proponent. No additional land is required for the above additional installation of beneficiation unit. No forest land involved. The nearest river is Brahamani river located at a distance of 8.5 Km from the project site. There is the proposal for construction rain water harvesting structure for fulfilment of water requirement for the project over an area of 728 Sq.m.
9. The land area required for the project will be 2.2 acres which comes under agricultural waste land category which has been converted Gharabari Kissam and belongs to the project proponent. Plot No: 1138, 1139/1640 & 1278/1641; Khata No.: 267/39.
10. The proposed area is featured under the topo sheet No. 45T/13 bounded by Latitude:20° 12' 36"N Longitude:85° 31' 31"E. The mining lease area is also accessible NH-200 at 2.5 km. and Sukinda – Hatibari road 5 km. The nearest railway station is Sukinda Road railway station and Jajpur road railway station which are situated at a distance of 17 km and 25 km from the proposed area. Nearest airport is Biju Pattnaik Bhubaneswar Airport 80 Kms from project site. Nearest river is Brahmani River at 9.5 km and Jhamra river at 5 km. Nearest town is Sukinda at 4.5 km. Nearest forest Pubala Protected forest at 0.5km. Nearest habitation is within 3km from project site. There is no wild life sanctuary, corridor, National park, biosphere reserve located within 10 Km buffer zone of the project site.
11. Raw material linkage has been established for the proposed plant from M/s B.C. Mohanty Mines, Sukinda and from OMC Ltd. The project is well accessible for transportation of raw material and product. The project is accessible through a 50 ft wide road which connect to NH – 200 and Sukinda road railway station also located at a distance of 17Km from the project site.
12. The process is a beneficiation process of conversion of low grade chrome ore having content less than 40% of Cr₂O₃ into semi high grade ore having content 50-65% of Cr₂O₃.
13. Generation of solid waste (tailings generated = 3600 TPA having <10% Cr₂O₃) will be properly stored in an impervious platform in earmarked area and will be blended with chrome refractory mortar and sold. So there will be no waste generation from the proposed project. However taking into consideration of maximum storage of 6 years an area of 0.648

Acres has been demarcated for tailing pond.

14. **Total Water Requirement:** The total water requirement of the project is estimated as 68 KLD. The makeup water requirement for beneficiation plant will be 5 KLD and 2 KLD water required for dust suppression and green belt development will be sourced from Rain water reservoir and the drinking water requirement of 1 KLD will be sourced from bore well.
15. **Power Requirement:** The total power requirement is estimated as 100 KVA. It is proposed to draw the power from the NESCO.
16. **Green area:** Greenbelt is being/ will be developed in 2938 Sq.m 33 % of total project area. There is the proposal for plantation of 675 saplings within the project site.
17. **Baseline Environmental Studies** were conducted during winter season i.e. from 01-December-2019 to 29th February 2020. Ambient air quality monitoring has been carried out at 8 locations during 01-December-2019 to 29th February 2020 (winter season) and the data submitted.
18. No/ R&R is involved. The proposed expansion is within the existing plant premises without any further land acquisition.
19. The tailing generated from the project will be 6500 TPA (10% Cr₂O₃) which will be completely utilized in the existing chrome monolithic unit resulting in zero discharge from the proposed beneficiation plant.
20. The project generates employment opportunities for 10 personnel which includes operator - 2, supervisor 2, 3 no of semi-skilled labour and 3 no of unskilled labour.
21. The project has been considered under B2 Category (Mineral beneficiation with throughput <20,000 TPA) and exempted from public hearing.
22. The capital cost of the project is ` 1.05 Crores and the capital cost for environmental protection measures is proposed as ` 16 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as ` 4.5 Lakhs. The detailed CER plan has been provided in the EIA and cost of CER will be 9.5 Lakhs.
23. The proponent has mentioned that there is no court case or violation under EIA Notification for the project or related activity.
24. The Environment consultant **M/s Kalyani Laboratories (Pvt) Ltd. Pahala, Bhubaneswar** along with the proponent has made a briefing on the proposal before the Committee.
25. The SEAC in its meeting held on Dt: 30.09.2020 decided to take decision on the proposal after receipt of the following information / documents from the proponent followed by site visit of sub-Committee of SEAC.
26. The project proponent has furnished compliances as desired by the committee vide letter no. Nil dated 02.11. 2020 and same has been verified in its meeting held on 02.12.2020 as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
(i)	Detailed proposal for Zero Liquid Discharge (ZLD) with water balance	The proposed project will be operated with zero liquid discharge. The detail proposal for ZLD and water balance attached as Annexure 1
(ii)	Tailing pond capacity is exactly to the waste generation which might overflow / leaked. This shall be clarified how it will be managed. Showing tailing pond design with dimensions taking in to account tailing generation of 20MT/day (32 M3/ day) and the waste water inside it	Capacity of the proposed settling tank for tailing= 5m x 5m x4m = 100 cu.m. Tailing generated per day = 32 Cu.m Water with tailing = 24 Cu.m Total tailing with water = 56 Cu.m 56 Cu.m of tailing will be settled in the settling tank and water is being pumped to the process and settled material will pass through filter press and tailing will be disposed in tailing dumping yard. The tailing generated daily basis will be shifted as raw material in the monolithic unit.
(iii)	Adequacy of Tailing pond, its capacity and steps to prevent leaching of hexavalent chromium shall be furnished	As described above the Settling tank (Tailing pond) is of 100 cu.m capacity and it is adequate for settling of 56 cu.m of tailing generated from the process. The tailing pond will be provided with 150mm RCC which is enough to prevent leaching of hexavalent chromium.
(iv)	Detailed design and specifications of ETP and its adequacy	Detail design and specification of ETP has been attached as Annexure 2
(v)	Detailed design and specification of chrome ore storage area	The raw material requirement for beneficiation unit will be 18500 TPA i.e. 66 TPD. The raw material of chrome ore beneficiation plant is low grade chrome ore (26-40% Cr ₂ O ₃). The storage area demarcated for raw material will be 1274 Sq.m. which can store raw material for 60 days. (6400 cu.m capacity) Raw material will be stored in a silo of 5 m depth of above capacity as per the advice of the Hon'ble Committee. The raw material storage silo will be provided with RCC wall and flooring to prevent leaching and airborne of dust particle.
(vi)	Mitigation measures to control PM _{2.5} and PM ₁₀ . Predictive simulated value of PM _{2.5} and PM ₁₀ with commissioning of this project and surrounding similar new projects be submitted using the model for three-dimensional concentration	The proposed beneficiation plant will be established within the existing campus of the chrome monolithic unit. The simulation modeling was carried out taking into account of both the existing and proposed expansion unit. There is no similar project exists within 5 km radius of the project site. The details of the modeling study carried out for the project and the proposed mitigation measures for control of PM ₁₀ and PM _{2.5} has been attached as Annexure 3.
(vii)	Soil testing report showing actual value of hexavalent chromium	Soil testing report showing the actual value of hexavalent chromium attached as Annexure 4
(viii)	Traffic density study result is to be	The daily additional traffic load due to the plant

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	<p>submitted w.r.t future vehicular movements. Traffic density study process details be furnished. Are MCC AND MCTC methods of traffic density study is recommended for this kind of traffic? Is a standard commission viza-vis the findings of the study be indicated. Has this study been undertaken with important traffic intersection points at public roads i.e NH/SH/District road etc?. The study and the recommendation be rectified by a domain expert. Otherwise, a fresh study be undertaken by a domain expert</p>	<p>operation in full capacity will be as follows:</p> <ol style="list-style-type: none"> 1. Raw material transported from Mining to plant site =66 TPD 2. Truck capacity - 15 Tons 3. Trucks utilized for transportation of Raw material = 5 nos per day (Max) 4. Product transport from the plant to user agency = 40 TPD 5. Trucks utilized for transportation of product = 3 nos per day (max) 6. So the additional truck load for the road = 8 nos / day (Max) <p>The traffic for finished product and raw material from the plant site to the highway metering point will be maximum 8 nos of trucks per day. This traffic has no additional load on this way till metering point.</p> <p>MCC method is being followed here for traffic density study due to easier and less time consuming method as per recommendation of IRC. The details of traffic study has been attached as Annexure 5.</p>
(ix)	<p>Status of road side plantation on kaliapani plant road 25 km with steps proposed for its continuity</p>	<p>The distance from Kaliapani mining site to Ichapur metering point on NH is 22 Km. There is existing plantation on the road side and being maintained.</p> <p>The connecting road from Ichapur (on NH 200) to the plant site is of 3 Km distance.</p> <p>The proponent proposed for plantation along both side of throad connecting the plant site and the highway a distance of 3.0 Km. There will be proposal for plantation of 2000 saplings along both side of the road with a spacing of 2.5m. The saplings proposed for plantation are <i>Mangifera indica</i>, <i>Azadiracta indica</i>, <i>Bombax ceiba</i>, <i>Delonix regia</i>, <i>Cassia siamea</i>, <i>Albizzia lebbeck</i>, <i>Terminalia chebulae</i>, <i>Terminalia bellirica</i>, <i>Emblca officinalis</i>, <i>Mangifera indica</i>, <i>Terminalia arjuna</i>, <i>Terminalia alata</i>, <i>Gmelia arborea</i>, <i>Syzygium cuminii</i>, <i>Cassia fistula</i>, <i>Anthocephalus kadamba</i>, <i>Acacia nilotica</i>, <i>Eucalyptus sps</i></p>
(x)	<p>Tabulated form of existing features and proposed features is to be submitted</p>	<p>Submitted in compliance report.</p>
(xi)	<p>Details of Rain water harvesting. Adequacy of rain water harvesting</p>	<p>Details of rain water harvesting and scope for increasing the capacity is being attached Annexure 6</p>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	pond with scope for increasing its capacity shall be furnished	
(xii)	Five Reserve forests are nearby to the project site. Details about how to reduce impact of chrome leaching to the nearby forest area. Additional impact on the environment due to the establishment of chrome ore beneficiation unit	<p>Though there are 5 RF within the 10 Km buffer zone of the project site out of which Pubala protected forest is located at a distance of 500m from the project site.</p> <p>As the project operate with zero liquid discharge technology no waste water discharge will be there outside the plant premises.</p> <p>The anticipated impact of the proposed Chrome ore beneficiation unit on the surrounding environment is as below:</p> <ul style="list-style-type: none"> • Dust generation due to vehicular movement may have an impact on the nearby scrub vegetation. • The transport route and its periphery does not possess an active agricultural field. • As per the air quality modeling the maximum incremental ground level concentration is 1.05 µg/m³ and resultant concentration at a distance of 100m in SE direction (140°) will be 78.65 µg/m³, which is within the plant premises. There is no direct impact of dust pollution on the protected forest. • There is no wild animal under schedule I/ schedule II found within the protected forest. • The proposed mitigation measure will be as below • The crushing unit will be provided with pollution control measures like bag filter and stationary water sprinklers to settle down the dust within the plant premises thereby reducing the fugitive dust. • Water sprinklers will be installed at the dust prone areas to reduce the dust generation. • The plant operation will be carried out in the day time and transportation of raw material and products will be limited to day time only. • There will be three tier green belt development along the boundary to attenuate air and noise pollution. Plantation has been already initiated within the plant premises
(xiii)	Alternative Biological Method for conversion of Hexavalent Chromium	Considering the plant capacity as a tiny plant the method being selected as a established and easy operative method. Considering the investment

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent												
		<p>capacity, the chemical dosing method is best feasible at present.</p> <p>The important point for consideration here is the treatment is applicable for surface runoff during rainy season only. In other season the water is being completely recycled and preserved for process. Hence no treatment is required.</p> <p>Biological process may be recurring a continuous maintenance of the microbes which may not be feasible for this tiny plant.</p>												
(xiv)	Land schedule and kissam of land	The proposed beneficiation plant will be established within the existing premises of monolithic unit. No additional land acquisition will be there for the unit. Existing Land Document attached Annexure 7												
(xv)	Land conversion document for industrial use	The proposed beneficiation plant will be established within the existing premises of monolithic unit. No additional land acquisition will be there for the unit. Existing Land Document attached Annexure 7												
(xvi)	Certificate from the State Pollution Control Board w.r.t. to compliance to Consent to Establish and Consent to Operate conditions of existing units	Certificate from regional office, OSPCB attached Annexure 8												
(xvii)	Area required for the expansion	Total area available is 8904 Sq.m. with already constructed boundary wall. The existing monolithic unit covers an area of 3128 sq.m. The proposed COB and accessory plant require 5776 sq.m. Hence no additional land acquisition is required for this beneficiation plant.												
(xviii)	Existing product with capacity	<table border="1"> <thead> <tr> <th>Product</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td colspan="2">Existing Unit</td> </tr> <tr> <td>Chrome monolithic</td> <td>12000 TPA</td> </tr> <tr> <td>Chrome Refractory mortar</td> <td>12000 TPA</td> </tr> <tr> <td colspan="2">Proposed Expansion</td> </tr> <tr> <td>Chrome Concentrate Unit</td> <td>18500 TPA (Throughput)</td> </tr> </tbody> </table>	Product	Quantity	Existing Unit		Chrome monolithic	12000 TPA	Chrome Refractory mortar	12000 TPA	Proposed Expansion		Chrome Concentrate Unit	18500 TPA (Throughput)
Product	Quantity													
Existing Unit														
Chrome monolithic	12000 TPA													
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Proposed Expansion														
Chrome Concentrate Unit	18500 TPA (Throughput)													
(xix)	Year of commencement of production of existing unit	Consent to operate was granted vide letter no. 2355/Con-266 dated 06.12.2018 only for production of Chrome refractory mortar and Chrome monolithic. Copy of CTE and CTO attached. Annexure 9												
(xx)	Detailed Material Balance	Material balance attached Annexure 10												
(xxi)	Temporary changes in condition of nearby forests and contribution of project in it with steps for improvement shall be furnished	<p>The impact on the forest is only due to dust emission due to vehicular movement.</p> <p>The pollution control measures will be adopted for</p>												

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		<p>reducing the pollution within the plant premises and proper green belt will be developed to reduce the emission from the plant area.</p> <p>The air pollution due to the proposed beneficiation process will be confined within the premises. Only impact on forest is due to vehicular transportation which will be minimized by following measures</p> <ul style="list-style-type: none"> • There is the proposal for plantation along both side of the road connecting to the main road. • The trucks used for transportation of raw material and product will be covered reducing dust emission. • There will be water sprinkling (12 KL tanker) arrangement on the connecting road to reduce dust emission.
(xxii)	Leachate management from tailing stack and tailing disposal management be submitted if tailings are not used just in time on generation	The tailing will be settled in the settling pit of 5x5x2m capacity. After settling the tailing will be stacked in the tailing dump yard. Garland drain will be constructed along the tailing stack and any leachate out of the tailing dump will pass through the garland drain which connects to the ETP.
xxiii)	Has any socio-economic study undertaken? If so, the report be submitted. Is not, be undertaken by an institute of repute and report submitted	The socio-economic study has been carried out for the project and incorporated as a part of EIA report. Further the report is attached for reference. Annexure 11

27. The SEAC in its meeting held on Dt: 02.12.2020 decided to take decision on the proposal after a detailed site visit by the Sub-Committee of SEAC.

28. The sub-Committee of SEAC visited the project site on dated 21.12.2020 and following observations and recommendations were made:

- I) A narrow kucha road (about 3 km) inside the forest from Ichhapur (on NH 200) exists up to the plant side and in a very bad shape & appeared to have not maintained at all.
The proponent stated that this is a revenue road and dedicatedly used by their monolithic unit for transportation of their raw materials and finished goods.
- II) The existing unit is found to have the following:
 - a) Only one gate is being used both for material entry and exit including employees.
 - b) About 60 small sal trees (may be one- to two-year-old) found alongside the boundary of the unit.

- c) Heaps (stacks) of raw material (chrome ore), lumps of chrome ore after screening and finished material (monolithic) found without cover (except finished goods) in the open yard without garland drain and leachate arresting arrangement.
- d) A small pond looking like a 'Chua' full with water without RCC embankment and flooring was found and must be overflowing during rainy season and getting discharged to outside, contaminating soil nearby agricultural fields and ground water with hexavalent chromium and cannot be treated as a "zero Discharge Unit".
- e) No open drain was found inside the existing plant and a half constructed concrete tanks found at North-East corner, which is claimed to be the settling tanks under construction by the proponent.
- f) The existing ramp for to & fro movement of the loaded raw material vehicle for screening is found to be very unsafe.
- g) Lateral space (road) between South side boundary wall and the existing monolithic unit is very narrow and no road / space is available for free movement of any vehicle including a fire tender if necessary.
- h) On verification of the land documents, it was seen that the kism of the land is "Gharabari" instead of conversion to "Industrial use", contrary to the condition of Consent to Establish of State Pollution Control Board, Odisha.
- i) During the discussion at the time of site visit, the proponent stated that they will be purchasing the adjacent land shortly for better management by revising the plant layout.
- j) The vehicles carrying the finished goods ply through the Govt. land till it reaches village roads about 500 meters away from the plant site and passes through few villages till it reaches the main NH.
- k) A bore well without necessary NOC / permission from appropriate authority exists.
- l) No provision of renewable power.

With the above observations, it may be inferred that the existing monolithic unit is operating without following any standard norms for Environment Protection and pollution control including without conversion of the land to "Industrial use".

In view of the above facts, the sub-committee recommend the following for compliance by the proponent before consideration of EC for addl. chrome ore beneficiation unit inside the existing premises.

- 1) Conversion of the "Kisam" of the land to "Industrial use".
- 2) Revised lay out of the plant incorporating all the required features, namely:
 - a) Documents that the narrow road being use from NH 200 to plant site is revenue road inside the forest and permission from Revenue authority for the purpose being used

now and in future including construction and perennial maintenance of the road as per the advice of the appropriate Govt. authority.

- b)
 - (i) Material gate (entry & exit) separately with separate gates for employees.
 - (ii) Green belt, covered stack yard both for raw material and finished material with garland drain and leachate management, Tailing ponds (settling tanks) – more than one with proper embankment design and flooring to prevent leachate with design by subject expert having tailing management drain management, water harvesting pond with recharging pits (if any), fire tender corridor, ETP, STE, WTP etc.
 - (iii) Construction of hard RCC surface to handle raw-material and finished products.
 - (iv) Re-built of the ramp.
 - (v) Provision & detail plan thereof for use of renewable energy / solar power.
- c) To superimpose the existing set up / infrastructure / features of the plant on the revised layout to make assessment of the adequacy of the space of the existing unit for addl. Beneficiation plant.
- d) Necessary permission from the appropriate authority of the Govt. to use the land (about 500 mtrs) as haulage road for plying of vehicles carrying finished materials till it reaches the village road, the construction of the some road and perennial maintenance of the same with plantation on both sides of the haulage road as necessary in consultation of the local Govt. forest authority.
- e) Permission from village Panchayat to use the village road passing through few villages.

29. The SEAC in its meeting held on Dt: 22.01.2021 decided to take decision on the proposal after receipt of the following information / document as recommended by the sub-Committee of SEAC.

- 1) Conversion of the “Kisam” of the land to “Industrial use”.
- 2) Revised lay out of the plant incorporating all the required features, namely:
 - a) Documents that the narrow road being use from NH 200 to plant site is revenue road inside the forest and permission from Revenue authority for the purpose being used now and in future including construction and perennial maintenance of the road as per the advice of the appropriate Govt. authority.
 - b)
 - (i) Material gate (entry & exit) separately with separate gates for employees.

- (ii) Green belt, covered stack yard both for raw material and finished material with garland drain and leachate management, Tailing ponds (settling tanks) – more than one with proper embankment design and flooring to prevent leachate with design by subject expert having tailing management drain management, water harvesting pond with recharging pits (if any), fire tender corridor, ETP, STE, WTP etc.
 - (iii) Construction of hard RCC surface to handle raw-material and finished products.
 - (iv) Re-built of the ramp.
 - (v) Provision & detail plan thereof for use of renewable energy / solar power.
- c) To superimpose the existing set up / infrastructure / features of the plant on the revised layout to make assessment of the adequacy of the space of the existing unit for addl. Beneficiation plant.
- d) Necessary permission from the appropriate authority of the Govt. to use the land (about 500 mtrs) as haulage road for plying of vehicles carrying finished materials till it reaches the village road, the construction of the some road and perennial maintenance of the same with plantation on both sides of the haulage road as necessary in consultation of the local Govt. forest authority.
- e) Permission from village Panchayat to use the village road passing through few villages.

30. The project proponent has furnished compliances as desired by the committee vide letter no. Nil dated 02.02. 2021 and same has been verified as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
(i)	Conversion of the “Kisam” of the land to “Industrial use”.	During conversion proposal, the application was made to convert industrial land and same attached as Annexure 1 . After recommendations of SEAC they have applied again for conversion of land which is attached as Annexure 2 .	The proponent has carried out industrial activity in the land without conversion of the same for industrial purpose.
(ii)	Documents that the narrow road being use from NH 200 to plant site is revenue road inside the forest and permission from Revenue authority for the purpose being used now and in future including construction and perennial maintenance of the road as per the	The road used for transportation of the raw material and product from the plant site to NH200 is of 30 ft road. This is a panchayat Road and permission from the village panchayat has been obtained & same has attached as Annexure 3 .	-----

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	advice of the appropriate Govt. authority		
(iii)	<ul style="list-style-type: none"> • Material gate (entry & exit) separately with separate gates for employees. • Green belt, covered stack yard both for raw material and finished material with garland drain and leachate management, Tailing ponds (settling tanks) – more than one with proper embankment design and flooring to prevent leachate with design by subject expert having tailing management drain management, water harvesting pond with recharging pits (if any), fire tender corridor, ETP, STE, WTP etc. • Construction of hard RCC surface to handle raw-material and finished products. • Re-built of the ramp. • Provision & detail plan thereof for use of renewable energy / solar power. 	<p>Separate entry and exit gate will be there for both entry and exit and for employees. (given in layout plan)</p> <p>Green belt plan revised (Annexure 4).</p> <p>Details land use break up with details of raw material and product storage, details of the paved area, construction of drain etc has been attached as Annexure 5.</p> <p>ETP design attached Annexure 6</p> <p>Revised rain water harvesting plan attached Annexure 7.</p> <p>Revised layout plan showing green belt area, drainage with separate settling pits for raw material storage, product and surface water drain, ETP, tailing pond etc has been given as Annexure 8.</p> <p>All the raw material and finished product surface will be concreted and will be rebuilt the ramp.</p> <p>A proposal for solar power of will be installed for outdoor lighting with capacity 10 KW. The solar lights will be installed along the internal road of the plant (8 nos). along the boundary (10 Nos), Approach road from plant to the village road (15 nos).</p>	-----
(iv)	To superimpose the existing set up / infrastructure / features of the plant on the revised layout to make assessment of the	There is an existing shed of 600 sq.m having existing grinding unit used for chrome monolithic product. In the expansion programme the	Area requirement for tailing pond etc. has to be clearly indicated in the layout map and submitted. Moreover,

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	adequacy of the space of the existing unit for addl. Beneficiation plant	addition spiral, hydrocyclone will be installed in the same shed premises. No additional shed will be constructed for the installation of above equipment. Additional rain water harvesting, ETP, settling pits, drainage network will be constructed within the existing premises. Revised layout plan showing all details is attached. Annexure 8	the existing land acquired for the monolithic plant in which they have already established the plant. For the Chrome Ore beneficiation plant, they required to acquire additional land.
(v)	Necessary permission from the appropriate authority of the Govt. to use the land (about 500 mtrs) as haulage road for plying of vehicles carrying finished materials till it reaches the village road, the construction of the same road and perennial maintenance of the same with plantation on both sides of the haulage road as necessary in consultation of the local Govt. forest authority	Permission has been obtained from panchayat. The construction and regular maintenance of the haulage road will be done by the project proponent. Annexure 3	-----
(vi)	Permission from village Panchayat to use the village road passing through few villages	Permission from villagers will be taken for use of village road. Annexure 3	Authenticity of the certificate issued by the Sarpanch need to be verified.

31. The SEAC in its meeting held on Dt: 10.02.2021 decided to take decision on the proposal after they submit the necessary information / documents as sought by SEAC.
32. The project proponent has furnished compliances as desired by the committee vide letter no. Nil dated 26.02. 2021 and same has been verified as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
(i)	The proponent has carried out industrial activity in the land without conversion of the same for industrial purpose. Copy of conversion certificate has to be furnished	The land has been converted to Industrial land and copy of the same attached. Annexure 1.	----
(ii)	Certificate from the State Pollution Control Board w.r.t. to	The consent to operate has renewed and valid till	----

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	compliance to Consent to Establish and Consent to Operate conditions of existing units as the proponent has only furnished the Consent to Operate and Consent to Establish order of the State Pollution Control Board not the compliance certificate to consent conditions. Moreover, the validity period of Consent to Operate has already expired	31.03.2023. (Copy of the CTO attached Annexure 2) The condition of the CTO and CTE has been duly complied and certified by RO, Kalinganagar vide letter no. 1943/IND-266 dated 03.11.2020. Copy of the same already submitted and again attached (Annexure 3)	
(iii)	Area requirement for tailing pond etc. has to be clearly indicated in the layout map and submitted. Moreover, the existing land acquired for the monolithic plant in which they have already established the plant. For the Chrome Ore beneficiation plant, they may have to acquire additional land, If land is insufficient to accommodate all the features of beneficiation plant by superimposing it over the existing unit	The area required for tailing pond, raw material storage existing monolithic unit and proposed COB has been demarcated in the Layout plan with area details. Annexure 4	----
(iv)	Permission obtained from Gram Panchayat needs to be authenticated / endorsed by concerned local BDO	With reference to SEAC letter no. 71(3)/SEAC-Misc-28 dated 25.01.202, Point no. E, I have been asked to get permission from village Panchayat to use the village road passing through few villages which has been duly complied. Further I have been again asked for endorsing the Panchayat permission letter from the BDO. I have applied to the concerned BDO for the same and receiving copy is attached for your reference. (Annexure 5) As this is a time-consuming process, my case may be considered.	Specific condition to be stipulated that permission letter of Gram Panchayat to be validated by BDO within a month of time and legal affidavit to be submitted that the proponent will construct and maintain the village road.

Considering the information / documents furnished by the proponent and presentation made

by the consultant **M/s Kalyani Laboratories (Pvt) Ltd. Pahala, Bhubaneswar** on behalf of the project proponent, the SEAC recommended for grant of Environmental Clearance for the project valid for a period of 7 years with stipulated conditions as per **Annexure – C. The SEAC also recommended that a sub-committee of SEAC will visit the plant after six months of issue of Environmental Clearance to verify the compliance to Environmental Clearance conditions.**

D. PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S GREEN TECH ENVIRON MANAGEMENT PVT. LTD. FOR PROPOSED COMMON BIOMEDICAL WASTE TREATMENT FACILITY (CBWTF) AT MOUZA- PARMANPUR (PLOT NO. 473, CHAKA KATA NO. 536 AND 207), TAHASIL- MANESWAR, DISTRICT-SAMBALPUR OF SRI RAMAKANT BURMAN – EC

1. The proposal is for Environmental Clearance of M/s Green Tech Environ Management Pvt. Ltd. for proposed Common Biomedical Waste Treatment Facility (CBWTF) at Mouza-Parmanpur (Plot no. 473, Chaka Kata no. 536 and 207), Tahasil- Maneswar, District-Sambalpur of Sri Ramakant Burman.
2. The project falls under schedule 7 (da) “Biomedical Waste Treatment Facility” Category-B as per the EIA notifications, 2006 amendments dated 17th April, 2015
3. M/s. GreenTech Environ Management Pvt. Ltd. has proposed a New Common Biomedical Waste Treatment Facility (CBWTF) Project at Plot no. 473, Chaka Kata no. 536 and 207, Mouza Parmanpur, P.S. Sason, Maneswar, District- Sambhalpur, Odisha
4. Location and Connectivity - Geographical co-ordinates of the Project is Latitude: 21°32'16.96" N and Longitude: 84° 5' 34.32" E. Project site is falling in Survey of India Toposheet No. 64O/14, 64O/15, 73C/2 and 73C/3. Parmanpur Town is at 1.21 km. NH-6 is at 6.95 km. Sambalpur Railway Station at 14 Km. Raipur Airport at 245 km. Bhubaneshwar International Airport at 229 km. Harad nadi is at 3.5 Km. Malati Jhor Nadi is at 7.0 Km S, Munaki Nalla is at 6.0 Km. Jharghati Garpati RF is at 6.0 Km. Junan RF is at 9.0 Km. Lamdungri RF is at 9.0 Km. 5. Project site is 14 Km away from Critically Polluted Area, Ib Valley-Jharsuguda.
5. The proposed CBWTF unit consist of Incinerator (250 kg/hr) - 1no., Autoclave (500 liters per batch) - 1no., Shredder (100 kg/hr) - 1 no. and ETP (50KLD) – 1 no.
6. Water Requirement – Water requirement for the project will be 23 KLD. For drinking & domestic purpose water requirement will be 2 KLD, for process will be 18 KLD, for Green belt development and dust suppression will be 2 KLD. Borewell will be used for drinking and domestic purpose.
7. Power Requirement - Total electricity requirement of the project is about 80 KVA. Required power will be sourced from The Grid Corporation of Odisha Limited (GRIDCO). Additionally, DG set of 62.5 KW capacity has been proposed as backup support in case of power failure.
8. Green Belt- 33% (3329.75 acre) of total plot area shall also be developed under Green Belt.
9. Employment Potential: Total 60 nos. of manpower is proposed to be required to run the facility smoothly. Required manpower shall be sourced from local area.

10. ToR Application was submitted through online portal of MoEFCC on 17.11.2017. Project was considered for ToR Presentation on dated 05.01.2018.
11. ToR Letter for Baseline Environmental Studies and Preparation of EIA/EMP Report was granted on 25.01.2018.
12. Baseline data collection were conducted during 1st March, 2018 to 31st May, 2018 considering one non monsoon season.
13. Public hearing for proposed project was conducted on 18.01.2020.
14. Solid waste generation - During Construction phase of the unit, solid & hazardous waste will be wooden, metallic waste, containers, oil drums and domestic waste from the labor unit etc. During operation of the unit main waste will be Ash from incinerator and Sludge from ETP. Total 100-200 kg/day of incineration ash and 20-30 kg/day of residues shall be generated from the treatment unit. Ash residue from high temperature incineration and other material residues from the process shall be collected into containers / bags and shall be stored at temporary ash storage shed and shall be disposed into the secured landfill periodically after sufficient accumulation. Approx. 200-300 kg /month of Sludge will be generated from ETP. During operation phase 60 persons are engaged in operation phase and approx. 60 kg/day municipal solid waste is generated. All generated waste shall be disposed to secured land fill site as per the direction of OSPCB.
15. The project cost is ` 25 crores.
16. The Environment consultant **M/s SMS Envocare Ltd. 301, Pentagon, P-3, Magarpatta City, Hadapsar, Pune, Maharashtra** along with the proponent has made a presentation on the proposal before the Committee on 18.11.2020.
17. The SEAC in its meeting held on dated 18.11.2020 decided to take decision on the proposal after receipt of the following information / documents from the proponent.
18. The project proponent has furnished compliances as desired by the committee and same has been verified as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
(i)	Distance of the site from another Bio-medical Waste facility at Sundargarh	Another Common Biomedical Waste Treatment Facility is Located in DHH, Sundargarh which is 65 km away towards South direction from proposed project site of Greentech Environ Management Pvt. Ltd. Google Image showing distance is enclosed as Annexure-1 .
(ii)	75KM geographical domain should be left during collection of wastes as another unit has already established in Sundergarh after obtaining Environmental Clearance from SEIAA, Odisha. Details of coverage area for waste collection to be provided	Agreed. 75 Km geographical domain will be left during collection of wastes as another unit has already established in Sundergarh after obtaining Environmental Clearance from SEIAA, Odisha. Proposed project will collect waste from Sambalpur, Jharsuguda, Bargarh, Balangir,

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		Boudh, Subarnapur, Angul and Deogarh districts. We will not involve in the coverage area specified for CBWTF developed at Sundergarh.
(iii)	Status of NOC from CGWA and approval from Water Resources, Deptt. Odisha for use of ground water	Application for Ground Water Extraction is yet to be submitted to CGWA and approval from Water Resources, Dept. Odisha. NOC from CGWA and approval from Water Resources, Deptt. Odisha will be taken after getting EC.
(iv)	Study report on Occupational community health hazards and mitigative measures	Study report on Occupational community health hazards and mitigative measures is enclosed As Annexure-2
(v)	Report on possible hazardous waste generation and its disposal practice	During Construction phase of the unit, solid & hazardous waste will be wooden, metallic waste, containers, oil drums and domestic waste from the labour unit etc. During operation of the unit main waste will be Ash from incinerator and Sludge from ETP. Total 100-200 kg/day of incineration ash and 20-30 kg/day of residues shall be generated from the treatment unit. Ash residue from high temperature incineration and other material residues from the process shall be collected into containers / bags and shall be stored at temporary ash storage shed and shall be disposed into the secured landfill periodically after sufficient accumulation. Approx. 200 -300 kg/month of Sludge will be generated from ETP. During operation phase 60 persons are engaged in operation phase and around 50-60 kg/day municipal solid waste is generated. All generated waste shall be disposed to secured land fill site as per the direction of OSPCB.
(vi)	Recycle of Plastic should be opted if possible. Detailed proposal to be given	Plastic waste generated from medical and clinical activities are Contaminated Waste (Recyclable) Wastes generated from disposable items such as tubing, bottles, intravenous tubes and sets, catheters, urine bags, syringes (without needles and fixed needle syringes) and vacuometers with their needles cut) and gloves etc. As per procedure it is stored in Red coloured non-chlorinated plastic bags or containers. Treatment of the same involved Autoclaving or micro - waving/ hydroclaving followed by shredding or mutilation or combination of sterilization and shredding. Treated waste to be

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		sent to registered or <u>authorized recyclers or for energy recovery or plastics to diesel or fuel oil or for road making</u> , whichever is possible. There will not be disposal into CHWTSDF.
(vii)	Arrangement for collection of wastes from health centres with safety measures to be adopted	Waste from each health care establishment shall be collected on a daily basis. Segregated wastes collected in non- chlorinated, bar-coded and colour coded plastic bags from different wards and after internal shifting to the common collection point shall be the responsibility of health care establishments. Waste bags must be properly packed and sealed (tied) before shifting to avoid spillage. The common collection point room location, from where the operator's vehicle will lift the wastes must be mutually agreed for easy access of vehicle and environmental safe. Incinerable waste and autoclavable wastes must be kept with separate identity at common collection point for collection by the operator in separate colour coded closed containers for unloading in separate treatment area. The operator undertakes to transport the collected waste in GPS- enabled closed container vehicles. Personal protective equipment will be provided to all the workers during collection, transportation, shifting, segregation, treatment and final disposal. Operation of CBWTF will be strictly as per guidelines specified by CPCB and as per direction of OSPCB.
(viii)	Diesel to be used as fuel for incinerator. Details of storage facility and explosive licence status for storage of diesel at the site	High Speed Diesel (HSD) will be used for ignition of incinerator and for DG Set. Once Incinerator is charged, it will be run through electricity. Total fuel requirement for the project will be around 500-600 Liters/day. The same will be sourced from local market. PESO Licence for storage of HSD for such capacity is not required.
(ix)	Bio-medical wastes to be collected from individual health centres to the common collection centres by the project proponent only. This is to be confirmed by project proponent	Agreed. Greentech Environ Management Pvt. Ltd. will be responsible for collection, transportation, segregation at facility, treatment and disposal of waste. Operation of CBWTF will be strictly as per

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		guidelines specified by CPCB and as per direction of OSPCB. Undertaking for the same is enclosed as Annexure-3

19. Meanwhile, Mediaid Marketing Services, an OSPCB authorized common biomedical waste treatment & disposal facility (CBWTDF) operator having facility of 7TPD at Amasaranga. Majhapada, District Sundargarh has requested vide Ref no: MMS/2021/6204 dated 09.03.2021 that:

- The public hearing was conducted on 26th Dec, 2018 at Majhapara Gram Panchayat office, Block-Sadar.
- EC for the plant has been granted from State Level Environment Impact Assessment Authority (SEIAA), Odisha, Bhubaneswar vide ref no 7998/SEIAA dated 18 03 2020.
- After completion of construction and machinery installation, consent to operate was taken from state Pollution Control Board, Regional office, Rourkela vide consent order no 11/2020-21 (WPC & APC) dated 30.09.2020.
- It has come to their knowledge that a public hearing was held by M/s Green Tech Environ Management PVT Ltd for establishment of a new CBWTDF at Parmanpur. Sambalpur District. As per CPCB guideline 2016 for CBWTDF the coverage area of a CBWTDF located within the respective state/UT shall be allowed to cater healthcare units situated at a radial distance of 75 KMs. However. in a coverage area where 10.000 beds are not available within a radial distance of 75 KMs existing CBWTDF may be allowed to cater the healthcare units situated upto 150 KMs radius w.r.t its location. The Mediaid, CBWTDF plant has been designed to cater to 10,000+ beds with latest machinery. The regional bed strength within a distance of even 150 KMs radius is way less than 10.000 beds. So setting up a new CBWTDF in Sambalpur district will be disastrous to their very existence and they are looking at huge financial losses as the bed strength in the region is already lower than 10,000 beds.
- Also, as per CPCB guidelines, 2016 under criteria for development of a new CBWTDF for a locality or region, if a coverage area requires additional treatment capacity, in such a case, action may be initiated by the prescribed authority for allowing a new CBWTDF in that locality without interfering the coverage area of the existing CBWTDF & beds covered by the existing CBWTDF. But this new proposed facility falls within the coverage area of their newly operational CBWTDF.
- Also, being a new facility, any consideration should be allowed only after achieving 10,000 beds. They humbly request to discontinue the process for setting up at any new facility in the region (within a distance of 150 KMs from existing CBWTDF) until & unless plant achieves full capacity. Also, the distance between Mediaid Marketing Services and proposed site in Sambalpur district is approx. 100 KMs.

The SEAC decided to take decision on the proposal after a detailed joint consultation meeting with the proponent of both the CBWTDF i.e. Mediaid Marketing Services and M/s Green Tech Environ Management Pvt. Ltd. about the coverage area as both the CBWTF is located 65 Kms away from each other.

E. PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF SPRINGVILLE GREENS PVT.LTD. FOR EXPANSION OF RESIDENTIAL BUILDING COMPLEX “SPRING VILLE GREENS” AT MOUZA- BIJIPUR, BHUBANESWAR OF SRI. SURESH KUMAR SUREKA – AMENDEMENT OF EC.

1. This is a proposal for Amendment of Environmental Clearance of M/s Springville Greens Pvt. Ltd for expansion of Residential Building Complex “Springville Greens” At Mouza- Bijipur, Bhubaneswar of Sri. Suresh Kumar Sureka.
2. The project falls under Category “B”, Project or Activity 8(a) – Building Construction; Category B2 under Expansion project as per schedule of EIA Notification dated 14th Sep, 2006, as amended from time to time.
3. M/S. Spring Ville Greens LLP have Proposed Expansion of Residential Building Complex “Springville Greens” At Mouza - Bijipur, Bhubaneswar, Odisha. [for construction of 13 blocks of S+14 multistoried (MIG) Residential buildings, 16 blocks of G+4 storey (EWS) Residential buildings, one G+1 storey Society cum club building, One G+3 storey Commercial building and one Basement Parking].
4. The site is coming under developmental Plan of Bhubaneswar Municipal Corporation. The building plan has approved by Bhubaneswar Development Authority vide letter no. 29331, Dt.31st October 2016. EC obtained for 3 Block- of (S+12,S+13 & S+14) Storied , Seven Blocks of S+14 multistoried and One Block of G+4 Storied (for EWS), One Block of S+2 Storied Club-cum-Society Building with built-up area of 104545.10 sq.mt. Vide SEIAA letter No SEIAA/No-7077/SEIAA dated 30.07.2019.
5. The Revised building plan approved by BDA Vide letter No. –30092/BDA, Bhubaneswar, Dt. 12.12.2019. In revised building plan, total built-up area will increase from 104545.10 m² to 108149.210 m². Ground Coverage will decrease from 12580.90 m² (29.4% of Plot Area) to 10919.931 m² (25.350% of Plot Area), Max building height will increase from 44.85 mt. to 44.95 mt. and Dwelling units will increase from earlier proposed 1036 units to 1048 units.
6. **Connectivity:** M/s Spring Ville Greens LLP. has proposed to construct Residential Building with club. Project is located at nearer to Tamando Police station, surrounding area is developed area. The proposed site comes under BDA (Bhubaneswar Development Authority) and land use zone of the proposed site is residential Use Zone as per land use plan of BDA land use plan. Site is located in Mouza - Bijipur adjacent to AH-45 (CHENNAI - KOLKATA).The nearest airport is Biju pattanaik Airport which is 6.7 km away from the project site towards W direction. Retang Railway junction is 3.82 km away from the project site towards West direction. Bhubaneswar Railway station is 10.45 km away from the project site towards N-E direction.
7. **Power Requirement:** The daily power requirement for the proposed project is assessed as 5218 KW (6139 KVA at 0.85 P.F).The power will be entirely supplied through CESU. There is provision of Power backup for the residential project will be through DG sets of total capacity 1870 KVA (3 X 600 KVA + 1 X 70 KVA) silent DG Set (Radiator Cooled) for residential area. Separate generator yard will be constructed for housing DG sets.

8. **Water Requirement:** During construction stage daily requirement of water will avg. 60 KLD which will be sourced from surface water through water tankers. During operation stage total water requirement will be about 726.4 KLD out of which 453.5 KLD (daily fresh water requirement will be sourced from PHED/Ground water.) Approximately, 645 KLD of wastewater will be generated during the operational phase from domestic uses and other uses. The wastewater will be treated in a Proposed STP (MBBR) Capacity = 645 KLD - Considering 5% buffer - 680 KLD. (Separate for Phase-1, 2 & EWS) 3 nos. of STP having capacity of 680 KL (310 KLD, 240 KLD & 120 KLD) provided within the complex generating 580 KLD of recoverable treated waste water from STP. Out of which 390.4KLD (will be re-used for flushing 272.4 KLD, Gardening-60 KLD & 20 KLD for cooling water make-up & 8 KLD for car washing etc.) within the project. During dry season there will be 190 KLD treated waste water discharged into municipal sewer and 250 KLD will become surplus in monsoon season.
9. **Solid Waste Generation and Management:** The solid waste generated from the project shall be mainly domestic waste and estimated quantity of the waste shall be approx.3123 kg per day @ 0.500 kg per capita per day for residential population(@ 0.20 kg per capita per day for visitors, Staff & club area. Landscape wastes @ 0.2 kg/acre/day will be disposed in project premises).
10. **Green Belt:** The green area will be developed approx. 20 % of the plot area (8616.128 sqm). The biodiversity in the area will increase due to the proposed green areas.
11. **Parking:** Proposed total area of car parking (including commercial & EWS parking) - 22500.876 M²
12. The project cost is INR ` 184 Cr [180 Cr (Existing /EC Granted) + ` 4 Cr (Expansion)].
13. The Environment consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee.
14. The SEAC in its meeting held on Dt: 11.11.2020 decided to take decision on the proposal after receipt of the certain information / documents from the proponent.
15. The project proponent has furnished compliances as desired by the committee and same has been verified as follows:

SI. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of the SEAC
(i)	Detailed EC compliance report duly certified by MoEF&CC, Regional Office, Bhubaneswar	Six monthly EC compliance report (Oct'2019 to March 2020) submitted but not certified by MoEF&CC, Regional Office, Bhubaneswar. Letter from MoEF Regional Office for site	EC compliance report duly certified by MoEF&CC, Regional Office, Bhubaneswar has to be furnished.

SI. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of the SEAC
		inspection is attached as Annexure 1 & 1A	
(ii)	A comparative statement for existing and proposed expansion in tabulated form w.r.t change in floors, greenbelt, design, drainage plan, renewable energy details, parking, water consumption, waste water generation and its management, solid waste generation etc. Show the reduced the green coverage area in the plan/map and indicate the use of it. Indicate constructional features with details constructed as per revised building plan including the construction made w.r.t environmental features. Quantification of the same as per EC granted and the basis thereof as well as per proposed/revised EC sought with quantification, basis of the same including parking in terms of ECS	Comparative statement for existing and proposed expansion had been submitted. Attached as Annexure – 2 (A-G).	They have to submit a comparative statement in one page indicating all the features of existing and proposed expansion.
(iii)	Details of construction status (percentage wise) of existing project as per Environmental Clearance granted and proposed project	Only club and community hall is being taken which is 2.41% of EC granted.	Details of construction status (percentage wise) of existing project as per Environmental Clearance granted and proposed project has to be furnished.
(iv)	Copy of approval letter of BDA along with building plan for expansion project	Attached as Annexure - 3	Complied.
(v)	Copy of approval for safety and structural stability from appropriate authority of building for expansion	Attached as Annexure - 4	Complied
(vi)	Details and plant layout showing location of drainage changed due to expansion. Also capacity of drain for disposal of proposed discharge from BMC	Revised drainage layout submitted along with previous plan. As number of units increased by 12, no significant changes in	Complied

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of the SEAC
		drainage capacity. Attached as Annexure – 2 (C&F).	
(vii)	Details and plant layout showing location of greenbelt changed due to expansion	Previous landscape area – 8607.72Sqm. Landscape area provided for expansion 8616.128m ² .i.e. 20% of total area is green belt area is proposed and 538nos of trees will be planted. Green belt plan is attached as Annexure – 2 (B&E).	Complied
(viii)	Details and plant Layout showing location of rainwater harvesting recharging pits and quantity to be harvested taking into consideration the erratic rainfall pattern in the area	Attached as Annexure - 5	Complied
(ix)	Fire-fighting measures	Compliance as per NBC part 4 – 2016 & recommendation vide memo no. 5379 dated 29.03.2019 issued by Director General, Fire services, Cuttack has been incorporated in Fire fighting measures with NOC from Fire Officer attached as Annexure - 6	Complied
(x)	Certificate from DFO concerned that the site is not situated in eco-sensitive zone of Chandaka- Dampara wildlife sanctuary	Attached as Annexure - 7	Complied
(xi)	NOC from Airport Authority of India for increase the height of the towers	Max. height of block is 44.95mt and maximum permissible height from Airport Authority of India is 84.1mt. Attached as Annexure - 8	Complied
(xii)	Adequacy of parking in view of increased dwelling unit	Total area of parking requirement as per new BDA by law is 22500 sqmt	Complied

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of the SEAC
		for MIG (25%) which was earlier 26626 sqmt (30%). Parking plan and layout attached as Annexure - 9	
(xiii)	To indicate the quantity of water to be drawn from PHED and ground water and the letter for PHED/ BMC their inability to supply the full requirement of water	Presently there is no scope of supply of water from BMC/PHED. Letter from PHED and application to CGWB submitted as Annexure 10 & 11.	Complied
(xiv)	Status of NOC/permission letter from CGWA/WR Deptt, Govt. of Odisha respectively for drawl of ground water	Attached as Annexure - 11	Complied
(xv)	Permission from BMC to take additional load of waste water due to the proposed expansion	Required necessary permission shall be obtained to accommodate addition waste water while constructing drainage channel to discharge waste water. BDA NOC attached as Annexure 12	Specific condition to be stipulated in EC
(xvi)	Justification why it will be not considered as a "violation"	Only club building is under construction as per EC grant, which is only 2.41% of total sanction area with no changes in layout plan – hence may please be exempted from consideration of violation.	-----

16. The SEAC in its meeting held on Dt: 04.02.2021 decided to take decision on the proposal after receipt of the following from the proponent followed by a site visit of sub-committee of SEAC.

17. The project proponent has furnished compliances as desired by the committee and same has been verified as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of the SEAC
(i)	Detailed EC compliance report duly certified by MoEF&CC, Regional Office, Bhubaneswar	For certified compliance report the scientist B and D visited the site on dated 12.02.2021. They are asked to submit statutory documents; same has been submitted on - 18.02.2021 at Regional Office Bhubaneswar.	Decision to be taken after they submit detailed EC compliance report duly certified by MoEF&CC, Regional Office,

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of the SEAC
		Letter from Integrated Regional Office, Bhubaneswar for Site visit and submission of Statutory Docs at RO, Bhubaneswar attached as Annexure-A.	Bhubaneswar
(ii)	A comparative statement in one / two pages for existing and proposed expansion in tabulated form w.r.t change in floors, greenbelt, design, drainage plan, renewable energy details, parking, water consumption, waste water generation and its management, solid waste generation etc. Show the reduced the green coverage area in the plan/map and indicate the use of it. Indicate constructional features with details constructed as per revised building plan including the construction made w.r.t environmental features. Quantification of the same as per EC granted and the basis thereof as well as per proposed/revised EC sought with quantification, basis of the same including parking in terms of ECS	A comparative statement as per previous EC and current BDA approval for Expansion. Attached as Annexure-B	-----
(iii)	Details of construction status (percentage wise) of existing project as per Environmental Clearance granted and proposed project	Present construction Status – only club / community hall is being taken up for construction which is approximately 2.41 % of EC granted with no change in layout plan. For expansion we have not started any construction. Details are given in Annexure-C.	-----

The SEAC decided to take decision on the proposal after receipt of the following from the proponent followed by a site visit of sub-committee of SEAC.

- i) Detailed EC compliance report duly certified by MoEF&CC, Regional Office, Bhubaneswar.

F. PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S FALCON REAL ESTATE PVT. LTD. FOR EXPANSION OF PROPOSED CONSTRUCTION PROJECT "FALCON CREST" MULTI-STORIED RESIDENTIAL COMPLEX COMPRISING OF ONE BLOCK OF INTEGRATED (B+G+16), AND ONE BLOCK OF (B+G) STORIED CLUB-CUM-SOCIETY BUILDING PROPOSED OVER PLOT NO. 800,803 & 829, KHATA NO. 223 & 83, OVER AN AREA 3.352 AC OR 13565 SQ.M AT MOUZA- SHYAMPUR, DIST- KHORDA OF SRI PARTHAJEET PATNAIK – EC.

1. This is a proposal for Environmental Clearance of M/s. Falcon Real Estate Pvt. Ltd. for Expansion of proposed construction project "Falcon Crest" Multi-storied Residential complex comprising of one block of integrated (B+G+16), and one block of (B+G) storied Club-Cum-Society Building proposed over plot no. 800,803 & 829, khata no. 223 & 83, over an area 3.352 Ac or 13565 sq.m at Mouza- Shyampur, Dist.- Khorda of Sri Parthajeet Patnaik.
2. The project falls under Category "B", Project or Activity 8(a) – Building Construction; Category B2 under Expansion project as per schedule of EIA Notification dated 14th Sep, 2006, as amended from time to time.
3. The site is coming under developmental Plan of Bhubaneswar Municipal Corporation. A conditional Approval letter was received from the Bhubaneswar Development Authority for One block of (B+G+16) multistoried Residential Apartment Building and one block of B+G+1 storied Club-Cum-Society Building plan vide letter no. 525/BDA, Bhubaneswar, Dt. 7.01.2016. The copy of BDA approval letter is enclosed as Annexure-VIII. According to Airport NOC, we will again request to BDA for approval of One block of (B+G+13) multistoried Residential Apartment Building and one block of B+G+1 storied Club-Cum-Society Building plan.
4. The proposed project has obtained Environmental Clearance (EC) for 1 Block- of (B+G+12, G+1 & EWS (B+G+4) Storied, Building with built-up area of 38515 sq.mt SEIAA/No-1-NCP/2015 dated 9/02/2018. At present 50% of total built up area completed as per Previous EC.
5. In revised building plan, total built-up area will increase from 38515 m² to 44213.04 m², ground coverage will be 3537.94 m², Max building height will increase from earlier proposed 40.95 mt. to 44.1 mt., Dwelling units will decrease from earlier proposed 286 units to 217 units.
6. M/s Falcon Real Estate Pvt. Ltd. has proposed to construct Residential Building with club. Project is located at nearer to Sum Hospital, surrounding area is developed area. The proposed site comes under BDA (Bhubaneswar Development Authority) and land use zone of the proposed site is residential Use Zone as per land use plan of BDA land use plan. Site is located in Mouza-Sampur.
7. **Connectivity:** The nearest airport is Biju Patnaik Airport which is at 7.53 km Bhubaneswar railway station is at 10.4 km & Mancheswar railway station is 13.1 km away from the project site.

8. **Power Requirement:** The total demand load is estimated at 2047 KW. Power will be supplied by CESU. There is provision of Power backup for the residential project will be through DG sets of total capacity 2239 KVA (1 No. 1250 KVA+ 1 No. 1010 KVA) silent DG Set (Radiator Cooled) for residential area. Separate generator yard will be constructed for housing DG sets.
9. **Water Requirement:** During construction stage daily requirement of water will avg. 60 KLD which will be sourced from surface water through water tankers. During operation stage total water requirement will be about 260 KLD out of which 148 KLD (daily fresh water requirement will be sourced from PHED/Ground water.) Approximately, 193 KLD of wastewater will be generated during the operational phase from domestic uses and other uses. The wastewater will be treated in a (Proposed STP (MBBR) Capacity = 200 KLD - Considering 5% buffer - 193 KLD. provided within the complex generating 174 KLD of recoverable treated waste water from STP. Out of which 66KLD (will be re-used for flushing 272.4 KLD, Gardening-24 KLD & 21.4 KLD for road washing etc) within the project. During dry season there will be 62 KLD treated waste water discharged into municipal sewer and 86 KLD will become surplus in monsoon season.
10. **Solid waste Generation and Management:** The solid waste generated from the project shall be mainly domestic waste and estimated quantity of the waste shall be approx.365.032 kg per day @ 0.500 kg per capita per day for residential population (@ 0.20 kg per capita per day for visitors, Staff & club area. Landscape wastes @ 0.2 kg/acre/day will be disposed in project premises).
11. **Green Belt:** The green area will be developed approx. 22 % of the plot area (2959 sqm). The biodiversity in the area will increase due to the proposed green areas.
12. **Parking:** Proposed total area of parking (including club area) - 9014.29 m²
13. The project cost is ` INR 45 Cr [` 36 Cr (Existing /EC Granted) + ` 9 Cr (Expansion)]
14. The Environment consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee.
15. The SEAC in its meeting held on Dt: 18.11.2020 decided to take decision on the proposal after receipt of the following information / documents from the proponent followed by site visit by Sub-committee of SEAC.
16. The project proponent has furnished compliances as desired by the committee on dated 29.12.2020 and same has been verified as follows:

Sl. No	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
(i)	Detailed EC condition compliance report duly certified by MoEF&CC, Regional Office,	Six monthly compliances to Environmental Clearance for the month of October-2019 to March-2020 attached as	Certified copy of MoEF&CC, Regional Office, Bhubaneswar to

Sl. No	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	Bhubaneswar	Annexure-1 Letter from MoEF Regional Office for site inspection as attached as Annexure-1A .	EC condition compliance report has not been furnished.
(ii)	A comparative statement for existing and proposed expansion in tabulated form w.r.t change in floors, greenbelt, design, drainage plan, renewable energy, parking, water consumption, waste water generation, solid waste generation etc.	Attached as Annexure-2	Furnished
(iii)	Details of construction status (percentage wise) of existing project as per Environmental Clearance granted and proposed project	Attached as Annexure-3	Details of construction status (percentage wise) of existing project as per Environmental Clearance granted and proposed project has not been furnished. The information furnished by the proponent does not reveal the actual construction status of existing as well as proposed project.
(iv)	Copy of approval letter of BDA along with building plan for expansion project	Attached as Annexure-4	Copy of in principle approval submitted.
(v)	Copy of approval for safety and structural stability of building for expansion from appropriate authority	Attached as Annexure-5	Safety and structural stability certificate furnished.

Sl. No	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
(vi)	Details and plant layout showing location of drainage changed due to expansion	As per previous EC, location of STP was in basement area. No change in drainage plan only STP size changed as no of dwelling units and population changed. Drainage plan of project site given in Annexure-6	A4 size map furnished. They have to furnish map in A1 size.
(vii)	Details and plant layout showing location of greenbelt changed due to expansion	Previous Landscaped area provided was 5121.38 Sqm. Landscaped area reduced to 2959 sqm due to following points: a) Road width increased from 6.0 mtrs to 7.5 mtrs as per new BDA regulations. b) Club foot print increased. c) A large gate structure proposed. d) Covered transformer yard proposed. e) Increase in paved area due to addition of pedestrian path. f) Creation of Play field for residents in place of EWS block. Greenbelt Plan –Attached as Annexure-7 .	A4 size map furnished. They have to furnish map in A1 size.
(viii)	Details and plant Layout showing location of rain harvesting recharging pits and quantity to be harvested taking into consideration the erratic rainfall pattern in the area	Layout plan showing location of rain harvesting recharging pits and quantity to be harvested taking into consideration the erratic rainfall pattern in the area attached as Annexure-8	A4 size map furnished. They have to furnish map in A1 size.
(ix)	Whether EWS unit is mandatory or optional? Reason for removal of EWS units from the project	Previously EWS unit was shown inside campus as EWS block. As per proposed expansion a) Construction of EWS unit is	-----

Sl. No	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>not mandatory.</p> <p>b) Govt has provision to deposit shelter fee instead of constructing EWS unit and these fees will be used by Govt. for developing EWS units.</p> <p>c) We have already paid the fee as per Govt. Norms.</p> <p>d) Letter from BDA for deposits of Shelter fee in lieu of Provision of EWS Housing – letter no. 8861/BDA, Bhubaneswar, Dated 29.03.2018. Attached as Annexure-9.</p> <p>e) Submission of Shelter fee attached as Annexure-9A.</p>	
(x)	Certificate from concerned DFO if the project is coming within Eco-sensitive zone of Chandaka Dampara Sanctuary or not	Letter from DFO – attached as Annexure-10	Letter from DFO to contact ORSAC, BBSR to conduct DGPS survey has been furnished. They have to furnish certificate from concerned DFO if the project is coming within Eco-sensitive zone of Chandaka Dampara Sanctuary or not
(xi)	Details of Solar energy to be used in project with percentage of total power	Details of Solar energy given in Annexure-11	Furnished
(xii)	NoC from the Air Port Authority of India (AAI) for raising of building height	NOC from the Air Port Authority of India (AAI) attached as Annexure-12	Furnished

Sl. No	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
(xiii)	Indicate the ground coverage as per the existing EC with expansion the change in ground coverage be shown in the Map with Figure	As per previous EC: Ground Coverage was 3315.37 sqm As per Proposed Expansion for EC: Revised Ground coverage proposed is 3537.94 sqm, i.e. increase of 222.67 Sqm. Details enclosed in compliance report.	Furnished
(xiv)	Indicate the Constructional features as per the revised building plan including the construction made w.r.t environment features	Details enclosed in compliance report.	Furnished
(xv)	Quantification of the same (indicated above) as per EC granted and the basis there of as well as per proposed revised EC sought with quantification, basis of the same including parking in terms of ECS also	Details of parking area required for Previous EC and proposed Expansion are given in Annexure-1 (Comparison Statement).	Furnished
(xvi)	To indicate the quantity of water to be drawn from PHED and ground water and the letter from PHED/BMC their inability to supply the full requirement of water	NOC from PHED-regarding the water supply to the proposed expansion project as attached as Annexure-13 .	Furnished
(xvii)	Status of NOC/Permission letter from CGWA/WR Deptt, Govt. of Odisha respectively for drawl of ground water	NOC/Permission letter from CGWA- attached as Annexure-14 .	Furnished
(xviii)	Permission from BMC to take additional load of waste water due to the proposed expansion	They have applied to BMC for NOC and subsequently they have approved and requested us to pay additional fees, which was deposited by them. They are processing final NOC letter and we will deposit as soon as possible.	Permission from BMC to be submitted.

Sl. No	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
(xix)	Justification why it will not be considered as a "violation".	<p>a) They have proposed some additions to the previous EC, which was mostly increase on one floor and removal of EWS block for the benefit of residents only.</p> <p>b) The increase in basement area proposed was not yet being constructed.</p> <p>c) The addition of one extra floor in block-1 was also not constructed till date.</p> <p>d) They have proposed increase in club area and addition of gate house and transformer yard. All these are not yet been constructed.</p> <p>e) The decrease in green area was majorly due to increase in road width and paved area which were also mandatory as per new BDA guidelines.</p> <p>f) All the constructions they have made was as per previous EC and we are not deviating any were till date. They have applied for revised EC before we construct any additional proposed part so this proposal should not be considered as Violation.</p>	This has to be considered only after receipt of details of construction status (percentage wise) of existing project as per Environmental Clearance granted and proposed project from the proponent.

17. The SEAC in its meeting held on Dt: 06.01.2021 decided to take decision on the proposal after receipt of following information /documents followed by a site visit to the proposed site by the sub-Committee of SEAC.

- (i) Certified copy of MoEF&CC, Regional Office, Bhubaneswar to EC condition compliance report as the compliance furnished by the proponent has not been certified by the MoEF&CC.

- (ii) Details of construction status (percentage wise) of existing project as per Environmental Clearance granted and proposed project as the information furnished by the proponent does not reveal the actual construction status of existing as well as proposed project.
 - (iii) Plant layout map in A4 size showing location of drainage changed due to expansion has been furnished. They have to furnish plant layout map in A1 size.
 - (iv) Details and plant layout showing location of greenbelt changed due to expansion in A4 size has been furnished. They have to furnish the same in A1 size.
 - (v) Details and plant Layout showing location of rain harvesting recharging pits and quantity to be harvested taking into consideration the erratic rainfall pattern in the area in A4 size has been furnished. They have to furnish the same in A1 size.
 - (vi) Letter from DFO to contact ORSAC, BBSR to conduct DGPS survey has been furnished. They have to furnish certificate from concerned DFO if the project is coming within Eco-sensitive zone of Chandaka-Dampara Sanctuary or not
 - (vii) Permission from BMC to take additional load of waste water due to the proposed expansion shall be submitted.
18. The sub-Committee of SEAC visited the project site on dated 20.01.2021 and following observations and recommendations were made:
- i) A comparative matrix of salient and important features for the existing (for which EC was granted) and proposed expansion was submitted by the project proponent to the sub-committee.
 - ii) The following were discussed and sought for compliance by the project proponent:
 - a) A technical brief write-up with justification from the BDA approved structural engineer that the existing approved plan can take the load of additional proposed floor without threat to safety of the building and human life.
 - b) Numerical value of BDA norms to be indicated wherever the same is mentioned in the matrix submitted to the sub-committee.
 - c) Instead of two bore-wells for ground water, only one may be allowed as a "standby" source of water since PHED / Municipality water supply is available.
 - d) Since there is additional land of 40 kl for treatment on STP, the design capacity of STP need to be re-worked out with atleast 20% buffer capacity and confirmed.
 - e) Provision of 1% of total power required for the project has been made through solar PV system. The sub-committee desired to increase it adequately to 5% and submit a revised plan for the same.
 - f) The proponent need to submit the quantity of rain water to be harvested and re-charged vis-à-vis the water consumed against the norm of CGWA.

- g) The sub-committee observed that no construction has been made beyond the existing EC condition and hence, no violation.
19. The SEAC in its meeting held on Dt: 04.02.2021 decided to take decision on the proposal after the proponent submits detailed information / documents as desired by the sub-committee of SEAC and additional information as sought earlier vide letter no. 61 (2)/SEAC (Misc.) – 28, dated 19.01.2021.
20. The project proponent has furnished the information as requested vide letter no. 61 (2)/SEAC (Misc.) – 28, dated 19.01.2021 as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
1.	Certified copy of MoEF&CC, Regional Office, Bhubaneswar to EC condition compliance report as the compliance furnished by the proponent has not been certified by the MoEF&CC, Govt. of India.	Certified Compliance Report is Attached as Annexure-1 (Letter from MoEF Regional Office for site inspection)
2.	Details of construction status (percentage wise) of existing project as per Environmental Clearance granted and proposed project as the information furnished by the proponent does not reveal the actual construction status of existing as well as proposed project	Attached as Annexure-2
3.	Plant layout map in A4 size showing location of drainage changed due to expansion has been furnished. They have to furnish plant layout map in A1 size	As per previous EC, location of STP was in basement area. No change in drainage plan only STP size changed as no of dwelling units and population changed. Drainage plan (in A1 SIZE) of project site Attached as Annexure-3
4.	Details and plant layout showing location of greenbelt changed due to expansion in A4 size has been furnished. They have to furnish the same in A1 size	Previous Landscaped area provided Was 5121.38 Sqm. Landscaped area reduced to 2959 sqm. due to following points: a) Road width increased from 6.0 mtrs to 7.5 mtrs as per new BDA regulations. b) Club foot print increased. c) A large gate structure proposed. d) Covered transformer yard proposed.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		<p>e) Increase in paved area due to addition of pedestrian path.</p> <p>f) Creation of Play field for residents in place of EWS block.</p> <p>GREENBELT PLAN (in A1 SIZE) - Attached as Annexure-4</p>
5.	Details and plant Layout showing location of rain harvesting recharging pits and quantity to be harvested taking into consideration the erratic rainfall pattern in the area in A4 size has been furnished. They have to furnish the same in A1 size	Layout plan showing location of rain harvesting recharging pits and quantity to be harvested taking into consideration the erratic rainfall pattern in the area attached as Annexure-5
6.	Letter from DFO to contact ORSAC, BBSR to conduct DGPS survey has been furnished. They have to furnish certificate from concerned DFO if the project is coming within Eco-sensitive zone of Chandaka-Dampara Sanctuary or not	Letter from DFO and Certified DGPS Map showing Aerial distance between FALCON Real Estate Boundary and Chandaka -Damapara Wild Life Sanctuary Boundary - attached as Annexure-6
7.	Permission from BMC to take additional load of waste water due to the proposed expansion shall be submitted	We have applied to BMC for NOC and subsequently they have approved and requested us to pay additional fees, which was deposited by us. They are processing final NOC letter and we will deposit ASAP. Letter from BMC-(for previous EC and for Expansion) attached as Annexure-7 .

21. The project proponent has furnished compliances as per report of the sub-committee of SEAC and same has been verified as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
(i)	A technical brief write-up with justification from the BDA approved structural engineer that the existing approved plan can take the load of additional proposed floor without threat to safety of the building and human life.	Attached as Annexure-1
(ii)	Numerical value of BDA norms to be indicated wherever the same is mentioned in the matrix submitted to the sub-committee.	Attached as Annexure-1
(iii)	Instead of Two Bore-wells for ground water,	Agreed

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	only one may be allowed as a “stand by “source of water since PHED/ Municipality water supply is available.	
(iv)	Since there is additional land of 40 KL for treatment on STP need to be re worked out with at least 20 % buffer capacity and confirmed.	Attached as Annexure-2&3
(v)	Provision of 1 % of total power required for the project has been made through solar PV System. The sub-committee desired to increase it adequately to 5 % and submit a revised plan for the same.	Agreed

Considering the information furnished and the presentation made by the consultant, **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 7 years with stipulated conditions as per **Annexure – D**.

G. PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR PROPOSED EXPANSION OF RESIDENTIAL CUM COMMERCIAL COMPLEX ‘MANI TRIBHUVAN’ (FORMERLY KNOWN AS “MANI TIRUMALA”) AT MOUZA-KALARAHANGA, PS CHANDRASEKHARPUR, NANDAN KANAN ROAD, DIST- KHORDHA OVER TOTAL BUILTUP AREA OF 1,46,550.86M² (EXISTING: 76050.80 + PROPOSED EXPANSION: 70500.06 M²) – SUBMITTED UNDER VIOLATION CASE. (TOR)

1. Mani Tirumala Projects Pvt. Ltd., the project proponent is intending to take up expansion of the residential complex “MANI TRIBHUVAN” (Previously known as “MANI TIRUMALA”) at Plot Nos.13, 15, 21 To 31, 33, 36, 37, 38, 28/2573, 40 To 49, 58, 59 & 125 (Part) Mouza: Kalarahanga, P.S: Chandrasekharpur, Nandan Kannan Road, District Khurda, Odisha. The Geographical coordinate of the project site is: Latitude - 20⁰ 22’ 9.08” N & Longitude - 85⁰ 50’ 3.35” E.
2. The project proponent under existing part of the project had constructed 11 Blocks of Building of G+14 configuration comprising of 625 dwelling units on 9.83 acres (as sanctioned).
3. Environmental Clearance for the existing project was already granted by the SEIAA, Odisha on dated 02.04.2011. The proponent has also obtained Consent to Establish from the State Pollution Control Board, Odisha vide OM no. 6449/ IND-II/NOC-5402, dated 16.04.2011.
4. The project proponent now intends to take-up an expansion programme as follows, under which Tower-12 (A & B) of configuration B+G+27 will be constructed. In addition, 11 blocks of Duplex of configuration G+6 & G+7 will be constructed. 154 residential units will be accommodated in the proposed Tower - 12 and there will be 71 units in the Duplex blocks.

Existing project	Expansion project
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Existing project	Expansion project
<ul style="list-style-type: none"> • 11 Blocks, B+G+14 • 603 units 	<ul style="list-style-type: none"> • 22 units in 11 Towers of Phase-1. • Tower 12 (twin tower with common podium) having 154 units of a total height of 91 mtrs. • 3 nos. single storied utility shops have been proposed at the ground floor of Tower 12 to cater to the population of the development. • Duplex low rise bungalows: <ul style="list-style-type: none"> • 5 nos. G+7 duplex bungalow. Each bungalow is of 23.95 mtr. Height having 7 units each. Hence 5 bungalow buildings are having 35 units in total • 6 nos. G+6 duplex bungalow. Each bungalow is of 20.95 mtr height having 6 units each. Hence 6 bungalows buildings are having 36 units in total.
Built-up Area - 76050.80 m²	<ul style="list-style-type: none"> • Built-up Area - 70500.06 m²

5. The proposed expansion activity is covered under category B of item 8 (a) of Schedule to the EIA Notification, 2006, and requires prior EC from the SEIAA in Odisha based on the appraisal by SEAC.

6. Proposed Land Use:

Sl. No.		phase -1 (block 1-11)	Phase - 1 (block 12 and single storied shops)	Phase - 2 (duplex)	Total: extension	Total: overall	Overall percentage of the entire project
1	2	3	4	5	4 + 5 = 6	3 + 6 = 7	8
		Area (sqm)	Area (sqm)	Area (sqm)	Area (sqm)	Area (sqm)	%
1	Gross Land Area					52325.42	
2	Ground Coverage	17745.4	3279.21	3110.9	6390.11	24135.51	46.12
3	Total Green Area					18448.895	35.26
	Tree Plantation Area	8007.40	714.41	2106.07	2820.48	10827.88	20.7
	Other Green Area	861.15		1131.67	1131.67	1992.82	
	50% of Semipaved area & parking areas	1671.63	1113.54	2843.025	3956.565	5628.195	
4	Total Paved Area					9741.015	18.61

Sl. No.		phase -1 (block 1-11)	Phase - 1 (block 12 and single storied shops)	Phase - 2 (duplex)	Total: extension	Total: overall	Overall percentage of the entire project
	Road area at stilt level	3665.50	-	-	-	3,665.50	
	50% of Semi Paved Area/open parking	1671.63	1113.54	2843.025	3956.565	5628.195	
	Other hard paved areas					447.32	
5	TOTAL (Ground covered + total green area+ Hard paving area)					52,325.42	100%

7. Water Supply, Wastewater Generation, Recycling and Discharge:

Total water demand for the proposed expansion part of the Residential Complex project during operation stage will be around 219.03 KLD. Daily fresh water requirement to the tune of 123.56 KLD will be sourced from BDA Water Supply System and groundwater abstraction shall be done. Relevant permission from the respective authorities has already been obtained. In addition, treated wastewater to the tune of 95.47 KLD will be utilized in non-critical purposes like toilet flushing, landscaping, car washing, etc.

8. WASTE WATER:

A. WASTE WATER GENERATION FOR TOWER 12

Sl. No.	Category	Water requirement (kld)		Waste water to the STP (kld)
		Fresh Water (kld)	Treated Wastewater (kld)	
1.	Residential Population	69.65	34.30	83.16
2.	Floating Population	0.38	0.77	0.92
3.	O & M Population	2.32	1.14	2.77
4.	Club	7.56	1.89	7.56
5.	Irrigation		4.51	-
6.	Car Wash (nos.)		7.12	7.12
	TOTAL	79.91	49.74	101.54
	- Raw Wastewater to S.T.P.		INPUT	101.54
	-Treated Wastewater from S.T.P.		OUTPUT	99.00
	- Treated Wastewater to REUSE			49.74
	- Treated Wastewater disposal			49.26

B. WASTE WATER GENERATION FOR DUPLEX

Sl. No.	Category	Water requirement (KLD)		Waste water to the STP (KLD)
		Fresh Water (KLD)	Treated Wastewater (KLD)	
1	Residential Population	32.11	15.82	38.34
2	Floating Population	0.18	0.36	0.43
3	O & M Population	1.07	0.53	1.28
4	Irrigation		17.24	-
5	Car Wash(nos)		5.68	5.68
	TOTAL	33.36	39.62	45.72
	• Raw Wastewater to S.T.P.		INPUT	45.72
	• Treated Wastewater from S.T.P.		OUTPUT	44.58
	• Treated Wastewater to REUSE			39.62
	• Treated Wastewater disposal			4.96

C. WASTE WATER GENERATION FOR ADDITIONAL 22 UNITS IN THE 11 TOWERS OF THE EXISTING UNIT

Sl. No.	Category	Water requirement		Waste water to the STP (Kld)
		Fresh Water (Kld)	Treated Waste water (Kld)	
1	Residential Population	9.9	4.95	11.88
2	Floating Population	0.06	0.11	0.136
3	O&M Population	0.33	0.17	0.4
4	Car Wash	-	0.88	0.88
	Total	10.29	6.11	13.30
	Raw Wastewater to S.T.P			13.3
	Treated Wastewater from S.T.P.			12.97
	Treated Wastewater for Reuse			6.11
	Treated Wastewater for disposal			6.86

9. Wastewater Treatment

2 STPs based on SBR (Sequential Batch Reactor) Technology of capacities 100 KL & 50 KL shall be set up for the Towers and the Duplex respectively, i.e. for expansion part of the project. Wastewater from the additional 22 flats in 11 Towers of existing project shall be treated in the existing STPs with existing part of the project. Treated water, meeting the relevant norms, to the tune of 95.47 KLD, will be used for non-critical purposes like toilet flushing, car washing & irrigation purposes, etc. within the complex. Treated wastewater in excess (61.08 KLD) will be discharged into the public sewer system.

10. Municipal Solid Waste Generation and Its Management:

During Construction phase, discarded cement bags, waste paper and cardboard packing material etc. will be sold off to recyclers. Unusable steel bits and pieces will be collected

at site and sold to the recyclers. Construction debris and excavated earth will be used for land development purposes within the project site.

Solid waste generated during operational phase of expansion part of the project (around 674.8 kg/day) will be domestic in nature. These solid wastes will be segregated into biodegradable and non-biodegradable wastes and collected in separate bins. The non-biodegradable recyclable wastes will be sold to recyclers and the biodegradable and non-biodegradable inert / unusable wastes will be collected by BDA for final disposal on regular basis.

11. Rain Water Harvesting:

Rain Water Recharging pits are being proposed for artificial rain water recharge within the project premises. 5 nos. of rainwater recharge pits have been proposed.

12. Storm Water Management

A well-designed storm drainage system will be constructed in the complex. Storm drains of the complex will collect and convey the rain water into the adjacent public sewer / drainage system. While designing the internal drainage system, invert level of the public rain in-front of the project site will be given due consideration to avoid any floods or water logging in the site.

13. Electricity, DG sets, Stack height

Electricity will be supplied by CESU. The connected load will be about 1603 KVA. Electricity will be sourced from CESU. The expansion part of the project shall be provided with 2 DG sets of 500 KVA capacity each. The emission from DG sets will be discharged through a 4.5 meter stack for each DG set above the roof of the building. Low sulphur diesel will be used.

14. Project Cost: Estimated Project cost is around 80 Crores.

15. Plantation / greenbelt: 20.7 % has been earmarked for greenbelt area.

16. The proponent had started construction work on site without prior Environmental Clearance under EIA Notification 2006. 22 additional flats have been constructed in phase – I. In phase – II excavation work has been started for duplex low rise bungalow nos. 1,8,9,10,11. Raft foundation has been completed and tie beam work is going on for duplex low rise bungalow nos. 2,3,4,5,6,7. Hence, this a violation case.

17. The proponent submitted the proposal to MoEF&CC, Govt. of India on 12.09.2017 as violation case as per MoEF&CC, Govt. of India Notification S.O. 804 (E) dated 14.03.2017.

18. The MoEF&CC, Govt. of India had issued Office Memorandum No. Z-11013/22/2017-IA-II (M), dated 15.03.2018, which stipulates that all the proposals of category 'B' projects/activities pertaining to different sectors, received within six months only i.e. up to 13th September, 2017 on the MoEF&CC, Govt. of India portal, but yet not considered by

the EAC of MoEF&CC, Govt. of India, shall be transferred online to the SEAC/SEIAAs in the respective States/UTs.

19. This proposal was not considered by the EAC of MoEF&CC, Govt. of India. Hence, the MoEF&CC, Govt. of India had transferred the proposal to SEIAA, Odisha for consideration as per MoEF&CC, Govt. of India Notification S.O. 804 (E) dated 14.03.2017.
20. The proponent along with the consultant Envirotech East Pvt. Ltd. UNF-13, Unnayan Commercial Complex, 1050/1, Survey Park, Kolkata-700075 made a detailed presentation before the SEAC.
21. The SEAC on its meeting held on 10-08-2018 after detailed deliberations on the proposal in terms of the provisions of the MoEF&CC, Govt. of India Notification dated 14th March, 2017, confirmed the case to be of violation of the EIA Notification, 2006 and recommended to take decision on the proposal after receipt of the following. A site visit to the existing project also to be conducted by the Sub-Committee of SEAC to verify the present development.
 - a) Detailed construction status of existing project for which Environmental Clearance obtained including greenbelt, drainage system, STP and Solid Waste Management.
 - b) Details of the proposed project along with modified approval of BDA for the proposed project.
 - c) Details of construction already done for the proposed project for which the case has been considered as a violation case whether the section of column of foundation is sufficient for proposed extension of project.
 - d) Status of clearance from Water Resources Department, Govt. of Odisha for drawal of water for existing project.
 - e) Greenbelt area of 20% to be justified for the existing as well as proposed project.
 - f) Solid waste management plan for the proposed project.
 - g) Detailed water balance of existing as well as proposed project.
22. The Sub-Committee of SEAC had visited the site on 17-08-2018. The Committee observed the following during the visit:
 - a) Construction work for the proposed project is going on.
 - b) Greenbelt in the existing complex is found missing / not available except decorative plants.
23. The Sub-Committee recommended that the construction of any nature should be immediately stopped forthwith by appropriate authority.
24. The SEAC in its meeting held on 29-09-2018 decided to request the SEIAA, Odisha to issue direction to the proponent to stop construction activity immediately and accordingly

the SEIAA, Odisha was requested vide letter no: 859/SEAC-59, 22-10-2018 to issue direction to the proponent.

25. Now the project proponent has furnished compliances in hard copy as desired by the committee vide letter dated 06.12.2019 as follows. The proponent has not uploaded the information / documents as sought for in online portal and same is showing pending at the proponent level.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
(i)	Detailed construction status of existing project for which Environmental Clearance obtained including greenbelt, drainage system, STP and Solid Waste Management.	<ul style="list-style-type: none"> • Greenbelt development has already been initiated at site. 786 numbers of trees have already been planted at site. Additional 400 trees are under plantation. Total 1186 number of trees shall be there at site. The details of plantation are as per Annexure -1. • The project premises has an efficient drainage system which has been designed taking into consideration the ground profile and the different drainage channels in the neighborhood and it has been ensured that there is no water logging within the premises. As such, no impact on the natural drainage pattern of the area is envisaged due to operation of this project. • Two STPs of 330 KL capacity (for Block -1 to 8) and 100 KL capacity (Block -9 to 11) have already been installed at site. STP details and related documents have been provided in Annexure -2A & 2B. • 2 Garbage rooms adding up to 1700.75 sqft. area has been provided for segregation of municipal solid waste. Agreement with a private agency has been already done for collection and disposal of MSW. So as to keep the development in line with the modern day requirements, additionally 2 Nos. of composter plants of 250 Kg capacity for Block 9 -11 and 750Kg capacity for Blocks 1-8 have been ordered for management of organic waste. Attached offer letter and order copy of composters – Annexure -3. This will be at site within the next 5-6 weeks. • MSW collection agreement has been provided in Annexure – 4.
(ii)	Details of the proposed project along with modified approval of BDA for the	Modified approval of BDA for the proposed project has been presented in Annexure - 5

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	proposed project.	
(iii)	Details of construction already done for the proposed project for which the case has been considered as a violation case whether the section of column of foundation is sufficient for proposed extension of project.	Additional 22 flats have been built in the 11 blocks of Phase 1, details in Annexure - 6 . Status report of expansion (Phase -2) is attached as Annexure -7 . Structural Stability Certificate for 22 additional flats have been attached as Annexure - 8 .
(iv)	Status of clearance from Water Resources Department, Govt. of Odisha for drawal of water for existing project.	Ground Water Clearance letter no. 21-4(276)/CGWA/SER/2010-2547 Dated 5 th Nov, 2010, by Central Ground Water Authority has been presented in Annexure - 9
(v)	Greenbelt area of 20% to be justified for the existing as well as proposed project.	Greenbelt area has been considered based on the total land area and the land use plan. Calculation for the number of trees has been done taking into consideration 700 trees / hectare. Greenbelt details have been provided in Annexure -1
(vi)	Solid waste management plan for the proposed project.	2 Garbage rooms adding up to 1700.75 sqft. Area has been provided for segregation of municipal solid waste. Agreement with a private agency has been already done for collection and disposal of MSW. 2 nos of composter plants of capacity 250 Kg capacity for Blocks 9-11 and 750 kg capacity for Blocks 1-8 have been ordered for management of organic waste. MSW garbage collection agreement has been provided in Annexure - 4 . Order copy composter plants are provided in Annexure - 3
(vii)	Detailed water balance for existing as well as proposed project	Detailed water balance for existing as well as proposed project has been provided in Annexure - 10 .

26. The SEAC in its meeting held on 24.12.2019, recommended the following:

- (i) The SEIAA, Odisha may be requested to intimate the status of direction if any issued to the proponent as requested vide letter no. 859/SEAC-59, dated 22.10.2018.
- (ii) The proponent may be requested to upload the information / documents as sought for by the SEAC vide letter no. 743(2)/SEAC-Misc.28, dated 10.09.2018 in online portal for further processing of the application of the proponent.

27. The SEIAA, Odisha has already issued direction to the proponent vide letter no. 8455/SEIAA, dated 19.06.2020 to stop all construction activities. However, the proponent has not yet uploaded the information / documents as sought for by the SEAC in the online portal.

28. The SEAC in its meeting held on Dt: 03.07.2020 decided to issue a reminder to the proponent to upload information / documents as sought for by the SEAC vide letter no. 743(2)/SEAC-Misc.28, dated 10.09.2018 in the online portal.
29. Now the project proponent has uploaded the information / documents as sought for in online portal.
30. The SEAC in its meeting held on Dt: 22.01.2021 decided to take decision on the proposal after a site visit to the project area by the Sub-Committee of SEAC to verify the present status.
31. The sub-Committee of SEAC visited the project site on dated 12.02.2021 and following observations and recommendations were made:
 - a) During the site visit, the representative on behalf of the project proponent and their Architect present stated that their proposal for expansion of the project has been dropped. The few structures for Duplex buildings found to have been constructed will be demolished. Therefore, they have only issue of violation on account of construction of additional floors / units in few towers without environmental clearance.
 - b) The sub-committee also went around the complex and checked the physical position of green belt, disposal of treated waste water, drainage, re-charging of rain and run-off water, parking, STP, location and stack height of DG set, provision of solar power and piezometer etc.
 - c) No pedestrian pathways exist at the entry and exit gates with the above, the committee recommends the following:
 - i) The proponent need to execute and submit an legal affidavit that they will not go for any expansion without environmental clearance for the same and they will demolish within a month time the duplex housing structures constructed for expansion purpose.
 - ii) Detailed environmental clearance compliance report duly certified / authenticated by MoEF&CC, Regional Office, Bhubaneswar.
 - iii) A comparative matrix as per existing environmental clearance and additional construction made as violation with respect to change in floors / units, green belt, drainage, parking, water consumption and waste water generation and discharge of the same with water balance and flow diagram thereof and its management, rain water harvesting and recharging and other relevant environmental parameters be submitted.
 - iv) Lay out showing the network of waste water, rain and run-off water and the recharging facilities be submitted with corresponding quantities for both monsoon and non-monsoon period. Internal drain map also to be submitted.
 - v) Copy of approval letter of BDA with building plan for additional construction of floors / units

- vi) Approval with technical write up indicating justification for safety and structural stability for additional floors /units from BDA approved structural Engineer / appropriate authority be submitted.
- vii) NOC from Airport Authority of India for increase in the height of towers.
- viii) Permission from appropriate authority of 'Nala' where treated waste water is discharged to take the additional load of waste water.
- ix) The proponent need to submit the supporting document that the existing environmental clearance granted / BDA approval did not have the provision for pedestrian pathways at entry / exit gate.
- x) Green belt shall be strengthened by planting more tree saplings in the designated green belt

The SEAC decided to take decision on the proposal after receipt of the following information / documents as recommended by the sub-committee of SEAC:

- i) The proponent need to execute and submit an legal affidavit that they will not go for any expansion without environmental clearance for the same and they will demolish within a month time the duplex housing structures constructed for expansion purpose.
- ii) Detailed environmental clearance compliance report duly certified / authenticated by MoEF&CC, Regional Office, Bhubaneswar.
- iii) A comparative matrix as per existing environmental clearance and additional construction made as violation with respect to change in floors / units, green belt, drainage, parking, water consumption and waste water generation and discharge of the same with water balance and flow diagram thereof and its management, rain water harvesting and recharging and other relevant environmental parameters be submitted.
- iv) Lay out showing the network of waste water, rain and run-off water and the recharging facilities be submitted with corresponding quantities for both monsoon and non-monsoon period. Internal drain map also to be submitted.
- v) Copy of approval letter of BDA with building plan for additional construction of floors / units
- vi) Approval with technical write up indicating justification for safety and structural stability for additional floors /units from BDA approved structural Engineer / appropriate authority be submitted.
- vii) NOC from Airport Authority of India for increase in the height of towers.
- viii) Permission from appropriate authority of 'Nala' where treated waste water is discharged to take the additional load of waste water.
- ix) The proponent need to submit the supporting document that the existing environmental clearance granted / BDA approval did not have the provision for pedestrian pathways at entry / exit gate.
- x) Green belt shall be strengthened by planting more tree saplings in the designated green belt

H. PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF ENHANCEMENT IN PRODUCTION OF GRAPHITE ORE FROM 1047 TPA TO 15162 TPA PRODUCTION OF 4466 TPA SUB-GRADE ORE AND INSTALLATION OF BENEFICATION PLANT OF 20000 TPA CAPACITY OVER AN AEA OF 26.228 HA AT VILLAGE-MENKAMUNDA, TEHSIL- PAIKAMAL, DISTRICT- BARGARH OF M/S. MENKAMUNDA GRAPHITE ORE MINES - REGARDING SUBMISSION UNDER VIOLATION CASE (TOR)

1. The proposal is for Terms of Reference for enhancement in production of graphite ore from 1047 TPA to 15162 TPA production of 4466 TPA sub-grade ore and installation of beneficiation plant of 20000 TPA capacity over an area of 26.228 ha at Village-Menkamunda, Tehsil- Paikamal, District- Bargarh of M/s. Menkamunda Graphite ore Mines.
2. The ML area is located in village Menkamunda, Tehsil – Paikamal, Dist. Baragarh, Odisha and situated in Toposheet no. 64 L/4 with Latitude 20° 44' 17" to 20° 44' 29" N and Longitude 82° 44' 00" to 82° 44' 20" E, The nearest town is Paikamal and nearest railway station is Nuapada.
3. The project obtained approved ToR from SEAC, Odisha vide letter no. 126/SEAC-12 dated 06.12.2012 and the EIA study was conducted based on the approved ToR.
4. Baseline study for the project was carried out during March to May 2013.
5. The public hearing of the said project has been conducted on 21.12.2014 and the final EIA along with public hearing proceeding was submitted for Environmental Clearance to SEIAA, Odisha.
6. The project was considered for EC on 22.06.2015 at SEAC, Odisha and during the meeting the case of violation was pointed out.
7. As per the State Expert Appraisal Committee, Odisha as the mining activity of Menkamunda graphite mining is being continued after EIA, Notification, 2006 without obtaining prior environmental clearance from SEIAA, it is a case of violation to Environmental (Protection) Act, 1986.
8. As per SEIAA letter no. 848/SEIAA dated 29.02.2016, in compliance to O.M. No. J-11-13/41/2006-IA.II(I) dated 12.12.2012 and 27.06.2013, directions are issued under section 5 of the Environment (protection) act, 1986.
9. Further SEIAA letter no. 2819/SEIAA dated 15.04.2017, SEIAA instructed for online application under violation case as per MoEF&CC notification 14th March 2017.
10. Further the application for EC under violation case was submitted to EAC, New Delhi as per MoEF & CC, OM dated 14.03.2017 and with reference to MoEF & CC, OM dated 15.03.2018 the project has been transferred to SEIAA, Odisha for further appraisal.
11. Total Geological and mineable reserve in the ML area is 233375 T & 221706 T respectively. The life of mine is 11 years. The proposed rate of production is upto maximum of 15,162 TPA and the life of mine with present rate of production will be 16 years. The grade of graphite from the lease area varies from 5 -8% F.C. During the plan

period 10784 Cu.m of top soil and 102160 Cu.m of waste will be generated. The top soil generated will be utilized for plantation and waste generated will be dumped separately and used for backfilling, road construction work. Nature of waste is mostly Khondalite.

12. The water requirement for the project will be 5500 liters per day. The mine will create employment opportunity for 40 personnel.
13. During the proposed plan period the mining activity will continue by semi mechanized method with occasional drilling and blasting where hard rock area found. The height of the bench is 4m, width of the bench is 5m and angle of the slope is 60°. The slope of the quarry is 37½ ° from horizontal. The waste rock stacked separately on the barren ground. Occasional drilling and blasting will be required to loosen the rock.
14. The primary base line data i.e Ambient air quality, Noise quality, Surface and ground water quality and soil quality has been monitored and analysed by Min Mec R&D Laboratory, New Delhi for the period of March to May 2013.
15. The public hearing for the project was conducted on 21.12.2014.
16. The total cost of project is 2.00 crores, and environmental control measures cost is Rs.11.49 lacs. The total recurring costs per annum, excluding man power cost, works out to be Rs 6.13 lacs.
17. The project proponent along with the consultant **M/s Kalyani Laboratories Pvt. Ltd., Plot No.: 78/944, Pahala, Bhubaneswar -752101** made a detailed presentation on the proposal on 19.10.2019.
18. The SEAC in its meeting held on Dt: 19.10.2019 confirmed the case to be of violation of the EIA Notification, 2006 and decided to take decision on issue of specific Terms of References after a visit to the site by the Sub-Committee of SEAC.
19. The sub-Committee of SEAC visited the project site on dated 18.01.2020 and following observations and recommendations were made, besides the other conditions, to be incorporated for EMP preparation with following specific conditions in the ToR.
 - i) Menkamunda Graphite mines is adjacent to Temrival Graphite Mines 1, 2 & 3 existing over dumps, agriculture fields nearby, processing unit (defunct).
 - ii) The above said mine did not appear to have a right slope contour based on the slope study and the OB are dumped unscientifically just adjacent to the slope. As such, the danger of erosion is imminent. No plantation was found across the OB also.
 - iii) Except west side, no safety zone is found. Even the safety zone on west side is less than the desired width of 7.5 mtr. No fencing along the sides of the mines was found. Thus, it endangers the safety of livestock and human beings with possibility of falling into the mines.
 - iv) The said mines were found to be full with water besides the other four mines of graphite ores of the same promoter full with water. The water must have been accumulated due to rain water and run-off water during raining season.

- v) No mechanism is found to be in place for disposal of the water. The promoter/ proponent stated that this water is used by the farmers in their agricultural fields by pumping.
- vi) It was also noticed that the tailings / sludge/ residues after beneficiation dumped alongside the pits in a very haphazard & unscientific manner.
- vii) The promoter stated that they will be applying for ToRs for the other four mines in due course which are in cluster.

20. Based on the above observation, the sub-committee recommended / suggested the following.

- (i) Area of mine shall be well demarcated by posting of pillars duly numbered.
- (ii) Safety Zone must be left of the desired dimension in all sides of the mines with necessary fencing to prevent any incident of falling the animals/or human beings. For this, continuous tree planting in safety belt area shall be ensured.
- (iii) The promoter must submit a slope study conducted by Govt. Institute of National repute with EMP/EIA. They must identify the location to accommodate adequately the estimated OB. Over dump location shall be specifically shown in map & demarcated in field with proper slope & safety so that erosion from dump will not affect nearby agricultural field
- (iv) Utilization of over dump for brick manufacture shall be explored by project proponent so that over dump is utilized for brick manufacture.
- (v) The promoter must submit a plan & mechanism for the disposal of huge water perennially. After ascertaining quality of water accumulated in mined out area, its proper and safe disposal shall be planned in EMP and executed during operation period.
- (vi) After completion of mining, creation of large water bodies may be planned as per conceptual plan.
- (vii) In processed plant, safe disposal of slurry left shall be planned by project proponent in EMP to be executed during operational period.
- (viii) Detailed design of storage and management of tailings/sludge etc.
- (ix) They must submit the layout/ design & location for dumping of residues to be generated during the process of beneficiation.

The SEAC, after detailed deliberations on the proposal in terms of the provisions of the MoEF&CC, Govt. of India Notification dated 14th March, 2017, confirmed the case to be of violation of the EIA Notification, 2006 and **recommended for issuing Standard Term of Reference as per Annexure- E along with the following specific Term of Reference** for undertaking EIA and preparation of Environmental Management Plan (EMP):

- (i) The State Government to take action against the project proponent under the provisions of section 19 of the Environment (Protection) Act, 1986, and further no Consent to Operate to be issued till the project is granted Environmental Clearance.
- (ii) The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with

the SPCB prior to the grant of Environmental Clearance. The quantum shall be recommended by the SEAC and finalized by the regulatory authority i.e. SEIAA, Odisha. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the SEAC and approval of the regulatory authority i.e. SEIAA, Odisha.

- (iii) Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.
- (iv) Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
- (v) The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter in the EIA report by the accredited consultants.
- (vi) Public hearing has already been conducted for the proposal earlier on 21.12.2014, a copy of which is also furnished with EIA/EMP. For this reason, conducting a fresh Public Hearing has been exempted.
- (vii) One season fresh base line data to be generated for EIA/EMP preparation.
- (viii) To submit the lease sketch approved by DMG, at the time of presentation before SEAC.
- (ix) Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report.
- (x) Detailed hydrological study to be carried out in core and buffer zone of the project as per the recent GEC guidelines 2015.
- (xi) Approved mining plan is to be submitted.
- (xii) Recent compliance report from the regional office of MoEF&CC, Govt. of India, Bhubaneswar for the existing Environmental Clearance, if any.
- (xiii) Recommendation of the sub-committee of SEAC to be incorporated as specific Terms of References.

I. PROPOSAL OF ENVIRONMENTAL CLEARANCE OF CHHEND HERITAGE HOMES PVT. LTD. FOR STORIED A.H.P RESIDENTIAL APARTMENT BUILDING OVER AN AREA 3.30 ACRES IN KHATA NO. 9 & PLOT NO. 289/432 (P), 288 (P), 280(P), 292 (P), 291 (P), AT MOUZA- CHHEND, R.T.U-3, P.S. CHEND, TAHASIL- ROURKELA, SUNDERGARH. OF SRI ALOK SHARMA (DIRECTOR) - EC

1. This is a proposal for Environmental Clearance of Chhend Heritage Homes Pvt. Ltd. for storied A.H.P Residential Apartment Building over an area 3.30 acres in Khata No. 9 & Plot

No. 289/432 (P), 288 (p), 280(P), 292 (P), 291 (P), at Mouza- Chhend, R.T.U-3, P.S. Chhend, Tahasil- Rourkela, Sundergarh. of Sri Alok Sharma (Director). With total built-up area will be 20407.0974 Sq.mt.

2. The project falls under Category “B”, Project or Activity 8 (a) as per schedule of EIA Notification dated 14th Sep, 2006, as amended from time to time.
3. The proposed project is for construction of affordable housing blocks under “Housing for All” schemes for economically weaker section at Plot No. 289/432 (P), 288 (p), 280(P), 292 (P), 291 (P), Khata No. 9, Mouza- Chhend, R.T.U-3, P.S. Chhend, Tahasil- Rourkela, Sundergarh Odisha over an area of 3.30Acres (13354.62 Sq.mts) through Public Private Partnership (PPP) mode and will be implemented by M/s Chhend Heritage Homes Private Limited and Rourkela Development Authority (RDA).
4. A total area of 5.05 Acres (Project area) is divided into Affordable Housing Area (AHA) of 3.30 acres on which Affordable Housing Project (AHP) will be undertaken and Developer’s Area (DA) of 1.75 acres on which Private Development Project (PDP) will be undertaken. The application for Environment clearance is made for construction of 500 units in 4 blocks of G+3 storied building for EWS, commercial area, primary school and primary health centre and community hall.
5. The project site is located in Survey of India Toposheet No. 73B/16. Nearest Railway station is Panposh Railway station at a distance of 1.5 Km from the project site. The nearest road is Rourkela Ring road, Chhend main Road & Panposh Road at a distance of 1.5Km, 0.3Km & 1.5Km respectively. The site is well connected to NH-23 at a distance of 1.7Km. Nearest airport is Rourkela airport at a distance of 1.7Km from the project site. The nearest river is Brahmani River & Koel River located at a distance of 1.3 Km & 2.0 Km respectively. Rourkela Steel Plant & Rourkela industrialship located at a distance of 4.5 Km & 2.5Km respectively.
6. Total land area of the project is 13354.62 Sq.m (3.3 Acres). Total Built Up Area: 20407.0974 Sq.m. Maximum height of the building is 13.05m.
7. The Detailed Area Statement of the project is mentioned in the table:

SI. NO.	PARTICULARS	AREA
1.	Total Site Area	3.3 Ac.
2.	Total Built up Area	20407.0974 m ²
3.	Ground floor coverage area	40.94%
4.	Total open space (Green Area)	2051.40 Sq.mt (15%)
5.	Service area	30. Sq.mt
6.	Parking area	2539.2311 Sq.mt.
7.	Area for Internal Roads	1268.33 Sq.mt.
8.	Area of STP & Sewerage	1747.77 Sq.mt.
9.	FAR (with respect to AHP Area of 3.30Acre)	1.486
10.	Area of Solid Waste management	provided in the main Entry

SI. NO.	PARTICULARS	AREA
	(location of waste bin)	and Exit point and also provided along the entry path to the four blocks
11.	No. of Trees provided	170
12.	Maximum height of the building	13.05 m

8. **Total Water Requirement:** Total amount of water requirement will be 310KLD out of which fresh water requirement will be 260 KLD & it will be made by PHD, Rourkela and 50 KLD of the water will be used for gardening purpose. There is the proposal for construction of 210 KLD STP for treatment of waste water from the project based on MBBR technology.
9. **Power Requirement:** 1000 KW which will be sourced from CESU. Solar Power will contribute 5% of total power demand i.e.50KW.
10. **Solid Waste generation:** Total 1000 kg/day amount of solid waste will be generated which will be disposed through Rourkela Municipal Corporation. (RMC).The permission has been obtained by RDA for collection of solid waste from Rourkela Municipal Corporation.
11. Rain Water will be harvested is 614.7 cum through 31 no. of recharging pits.
12. **Firefighting Installations:** Firefighting system will be installed as per recommendation of the Firefighting Officer, Odisha and as per the guideline of NBC (part-4).
13. **Parking space** is 2539.2311 Sq.mt has been provided.
14. The total **green area** provided for the project is around 2051 Sq.m (15% of total plot area). Around 170nos of trees plantation will be made in the open space, road side and garden areas.
15. The total estimated population of the project (office, retail area, residential area) will be 2500 persons.
16. The project cost is ` 31 Crores.
17. The Environment consultant **M/s Kalyani Laboratories (Pvt) Ltd. Pahala, Bhubaneswar** along with the proponent has made a briefing on the proposal before the Committee.
18. The SEAC in its meeting held on Dt: 11.09.2020 decided to take decision on the proposal after receipt of the following information / documents from the proponent followed by site visit of SEAC Sub-Committee.
19. The project proponent has furnished compliances as desired by the committee and same has been verified as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
(i)	Drainage layout showing waste water drainage system and storm water drains and surface drains	Copy of the drainage map showing the waste water drainage system and storm water drainage attached as	----

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	connecting the existing municipal drain	Annexure 1	
(ii)	Land schedule and kissam of land	Land details attached as Annexure 2	----
(iii)	DLC report from DFO regarding status of land	DLC report from DFO regarding status of land attached Annexure 3	----
(iv)	ECS is to be submitted in terms of two wheeler	The parking provided: 253 ECS ECS in terms of two wheeler parking = 1280. (taking ECS 0.2 for Two wheelers. Details in compliance.	----
(v)	Details of solar energy will be used in project	Out of the total power requirement 50 KW i.e. 5% of the total power requirement will be from solar energy and other 950 KW will be sourced from WESCO. The street lighting will be completely made by solar photo voltaic cell.	Specific condition to be stipulated in Environmental Clearance that the proponent shall submit a legal affidavit for use of solar energy of 5%.
(vi)	Break up % of total green belt (landscape and trees) and where the plantation will occur. Possibility to increase the green belt coverage to be confirmed. Number of trees/plants and types to be submitted.	Total Plot area: 13354 Sq.m Revised Green belt proposed = 2700 Sq.m (20.22%). Details in compliance.	----
(vii)	Layout showing location of rain harvesting recharging pits	Layout plan showing the rain water recharge pits attached as Annexure 4	----
(viii)	Layout showing the drain (waste water of the proposed project connecting to municipality drain and letter from RDA/municipality that their existing drain infrastructure can take the additional load of the proposed project	Layout showing the drain water of the proposed project connecting to municipality drain attached as Annexure 1 . Letter from RDA/municipality that their existing drain infrastructure can take the additional load of the proposed project Annexure 5	----
(ix)	Details of treatment of waste water and disposal thereof at the end of the	Letter from RDA/municipality that their existing drain infrastructure can take the	----

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	downstream by RDA/municipality with letter from Municipality authority to take the load of treated waste water and storm water discharge	additional load of the proposed project Annexure 5	
(x)	For conservation of water dual plumbing is inevitable. So need to confirm to provide dual plumbing arrangement so that part of waste water can be reused in flushing etc. and rest for plantation and balance to municipality drain if unavoidable	Dual plumbing for the project is not possible as this project is for EWS category and no flushing arrangement proposed in the project. However the treated waste water will be utilized for plantation, washing and avenue plantation along the road side. Details of waste water utilization plan given in Annexure 6	Specific condition to be stipulated in Environmental Clearance that the proponent shall provide dual plumbing arrangement so that part of waste water can be reused in flushing etc. and rest for plantation and balance to municipality drain if unavoidable

20. The SEAC in its meeting held on Dt: 02.12.2020 decided to take decision on the proposal after a site visit by the sub-committee of SEAC.

21. The sub-Committee of SEAC visited the project site on dated 10.03.2021 and recommended for grant of Environmental Clearance.

Considering the information furnished and the presentation made by the consultant, **M/s Kalyani Laboratories (Pvt) Ltd. Pahala, Bhubaneswar** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 7 years with stipulated conditions as per **Annexure – F**.

J. PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S PANPOSH SUB-DIVISION GOVERNMENT REVENUE EMPLOYEES HOUSING CO-OPERATIVE SOCIETY LTD. (PSGREHCS LTD)) FOR PROPOSED RESIDENTIAL BUILDING PROJECT (B+G+7) AT: MOUZA - R.T.U, NO-4, TAHASIL – ROURKELA, DIST – SUNDARGARH OF SRI SANJIT KUMAR RAY – EC

1. This is a proposal for Environmental Clearance of M/s Panposh Sub-Division Government Revenue Employees Housing Co-operative Society Ltd. (PSGREHCS Ltd)) for proposed Residential Building Project (B+G+7) At: Mouza - R.T.U, No-4, Tahasil – Rourkela, Dist – Sundargarh with total built up area – 24397.68 m².
2. The Panposh Sub- Division Government Revenue Employees Housing Co-operative Society Limited (PSGREHCS Limited) has been registered with ADM Sundargarh as a Housing Cooperative society vide registered no. 158/PN dated the 25th June 2010. The Society has deposited the premium amount and entered into a lease agreement signed through ADM. Rourkela vide lease deed no. 11711401011 dated the 7th June 2014 for an

area of 1.65 Ac. As per the lease deed, the society has applied for construction of Apartment comprising of 134 flats, approved by RDA. Rourkela vide their letter no. 1910 dated 10.05.2017. Subsequently the project is registered with ORERA vide its Registration No. RP/30/2017/00012 dated the 11th December, 2017.

3. This proposed project comes under Building and Construction projects under schedule 8(a) of the EIA Notification dated 1st December, 2009 – S.O.3067 (E) - Amendment of EIA Notification dated 14th September, 2006).
4. This is an existing project of G+4 with built up area 15016.28 sqm. The project built-up area was less than 20,000 sqm and was not coming under the purview of EIA notification, 2006 and amendment there of at that time.
5. Now the project proponent is willing to expand the project by adding floors to the existing building. Additional built up area is 9381.4 sqm and after expansion built up area will become 24397.68 sqm. After proposed expansion, built-up area will be more than 20,000 sq m and thus attracts applicability of EIA Notification, 2006 and accordingly application has been submitted to obtain the environment clearance (as a new project).
6. Total land area of the project is 1.65 Ac. Total Built Up Area: 24397.68 m². Max. Height of Building 19.74m.
7. The proposed site is located at Mouza: Rourkela, Tahasil: Rourkela, District- Sundargarh, Odisha. The Geographical co-ordinate of the project site is: Latitude : 22° 14' 44.32"N Longitude : 84°49' 58.53"E.covering in Topo Sheet No.F45G16
8. The project area is at a distance of 90 m from Ring Road, 2.15km from Panposh Road-4km from NH-23, 4km from SH-10. Biju Pattanaik Airport which is 240km away from the project site. Panposh railway station is 3.5 km away from the project site. Koel River is about 3.5 km from the project boundary. Reserve forest nearby are Kamarpahar Reserve Forest 4.5 km away and Mudrapahar Reserve Forest 5 km away.
9. **Meteorology:** The temperature of Rourkela varies between 46.3° C during summer (April - July) to 7° C during winter (November to January). The humidity is high in the summer months. The wind flows in summer from south west with a speed of 35- 40 km/hr and in winter season from north east with a speed of 18-24 Km/hr. The annual average rainfall is 128.8 cm..
10. The Building Details Of The Project:

Sl. No.	Particulars	Area (in Sqft)	Area-sq m
1.	Plot Area	71,874.00	6677.313
2.	Total F.A.R	161,633.99	15016.289
3.	Total built up area	262,614.41	24397.677
4.	Covered Parking (25% of FAR Area)	57,384.51	5331.195
5.	Green Belt (15.47% of Plot Area)	11119.85	1033.068
6.	Height of the Building	19.74 mt	--

Sl. No.	Particulars	Area (in Sqft)	Area-sq m
7.	No. of Flats	134 Nos.	--
BUILT-UP AREA BREAK-UP			
8.	Basement Floor Built up Area	35656.66	3312.612
9.	Ground Floor Built up Area	33183.57	3082.855
10.	First Floor Built up Area	28326.26	2631.596
11.	Second Floor Built up Area	28326.26	2,631.596
12.	Third Floor Built up Area	28326.26	2,631.596
13.	Fourth Floor Built up Area	28326.26	2,631.596
14.	Fifth Floor Built up Area	28326.26	2,631.596
15.	Sixth Floor Built up Area	28398.93	2638.347
16.	Seventh Floor Built up Area	23743.95	2205.885

11. **Power Requirement:** Electricity requirement for the society building will be 550 KW which will be supplied from the WESCO, Rourkela, Odisha. In addition to this, Energy efficiency solar roof top system is proposed and solar PV cells of 1.5 KW will be installed. 1 x 500 KVA DG sets will be provided as power backup.
12. **Water Requirement:** Fresh make up of 55.35 KLD will be required for the project which will be sourced from ground water. The existing water requirement of the project is 91KLD, out of which 35.65KLD of treated water from in house STP will be reused. The freshwater demand of 55.35KLD will be met from ground water supply. Dual piping system for usage of recycled water has been provisioned
13. Rain Water will be harvested through 13 no. of recharging pits.
14. **Firefighting Installations:** Firefighting system will be installed as per recommendation of the Firefighting Officer, Odisha and as per the guideline of NBC (part-4).
15. **Solid Waste Management:** Total solid waste generation is 214 kg/day. Biodegradable/ Compostable waste generation will be 128 kg/day and 86 kg/day will be inorganic waste generation. As the project is coming under Rourkela Municipality Corporation, the inorganic waste will be segregated disposed through RMC.
16. Parking space equivalent to 169 Equivalent Car Space (ECS) is provided of which 79 ECS is in basement and 90 ECS is on ground floor parking.
17. The total green area provided for the project is around 1111.85 Sqm i.e, approximate 15.47% of total plot area.
18. The project cost is Rs.43 Crores including taxes.
19. The Environment Consultant **M/s P and M Solutions, Ltd. Noida** along with the proponent made a detailed presentation on the proposal before the Committee.
20. The SEAC in its meeting held on Dt: 24.08.2020 decided to take decision on the proposal after receipt of the following information / documents from the proponent followed by the site visit of the sub-Committee of SEAC.

21. The project proponent has furnished compliances as desired by the committee vide letter no. Nil dated 09.03.2021 and same has been verified as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
(i)	Revised plantation layout is to be submitted (both existing and proposed for expansion).	Landscape Plan, Existing Floor plan and Proposed Floor plan is attached as Annexure 1
(ii)	Percentage of green cover/greenbelt excluding landscape green coverage (both existing and proposed for expansion).	Total Plot area of the project is 6677.31 Sqm of which 15.47% is provided as Green belt area i.e. 1033.1 Sq.m. The proposed plantation is also the same as mentioned above since there is no change in plot area. Key Landscape plan is attached as Annexure II.
(iii)	Revised drainage layout showing internal drains, storm water/runoff and waste water within premises connecting to municipality drain both existing and the proposed be shown.	Storm water drainage map is attached as Annexure III.
(iv)	Copy of approval letter from RMC for existing project of G+4 with built up area 15016.28 sqm.	RMC letter for existing project of G+4 is attached as Annexure IV.
(v)	Detailed usage of solar/renewable energy(percentage wise) and increase minimum to 1%	Electricity requirement for the society building will be 550 KW which will be supplied from the WESCO, Rourkela, Odisha. In addition to this, Energy efficiency solar roof top system is proposed and solar PV cells of 1.5 KW will be installed. Solar water heater 11000 LPD is also proposed. Lighting of the common areas by solar energy/ LED devices. Maximum use of sun light will be done and minimize the use of electricity during day time. Solar/renewable energy provisions are made as per N.B.C norms. Typical plan showing solar energy is attached as Annexure V.
(vi)	Detailed layout of existing and proposed drains and Storm Water Management	Ref. Annexure III.
(vii)	Revised layout showing DG sets location w.r.t wind direction and the sketch of installation of DG sets on the platform having the desired stack height as per the norm	Layout showing DG set location is attached as Annexure VI. Predominant wind direction on the project site is towards SW and mostly calm.
(viii)	Details of Rain water	Rain water harvesting plan is attached as

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	harvesting recharging pits in plant layout. Calculation of rain water harvesting taking extreme rainfall cases during the last 30 years	Annexure VII. Calculation of RWH pits is Attached as Annexure VII (a) .
(ix)	Copy of approval letter along with approved building plan of Rourkela Development Authority	Approval letter of RDA is attached as Annexure VIII .
(x)	Baseline study report is to be submitted	Baseline Study report is attached as Annexure IX .
(xi)	Copy of land documents supporting land schedule and kissam of land	Land Document is attached as Annexure X .
(xii)	NOC from PHED for unavailability of water supply for proposed project and NOC from CGWA/permission from WR Department for ground water use in case the same in unavoidable	NOC from Public Health Department Rourkela for unavailability of water supply for proposed project is attached as Annexure XI .
(xiii)	Comparative table in matrix form for existing parameters and proposed parameters w.r.t. water consumption, waste water generation, solid waste generation etc including other salient environmental and Pollution parameters	Matrix Table considering salient environmental and pollution parameters is attached as Annexure XII .
(xiv)	Details of fire safety measures taken and copy of permission for fire safety	The height of the building is up to 19.74 mts. Fire Fighting Extinguisher, Fire Sprinkling and other fire safety measures has been provided. However, an internal road of 6 mt width has been demarcated for movement of fire vehicle. Fire NOC is attached as Annexure XIII .
(xv)	A detailed write-up as to why the proposal will not be considered as a violation case	M/s Panposh Sub-Division Government Revenue Employees Housing Co-operative Society Limited (PSGREHCS Ltd.) has earlier proposed to develop a G+6 floor residential building of Builtup area which is less than 20000 sq.m. Hence the project was not applicable for obtaining Environment Clearance as per EIA notification 2006, Now the project proponent has proposed to develop seventh floor due to which the Builtup


Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		<p>area comes more than 20000 sqm. Hence the project is considered to be applicable for EC and the same has been applied at online portal of Parivesh via File No. SIA/OR/MIS/146514/2020</p> <p>Considering the above clarification the project will not be considered under violation case.</p>


22. The SEAC in its meeting held on Dt: 24.08.2020 decided to take decision on the proposal after a site visit by the sub-committee of SEAC.
23. The sub-Committee of SEAC visited the project site on dated 10.03.2021 and observed the following:
- i) At the time of site visit the construction of B+G+6 floors were under construction.
 - ii) The project developers have permission from Rourkela Development Authority for B+G+6 storeyed building as per Letter No. 1910/RDA dated 10.05.2017. However, the NOC from Rourkela Municipal Corporation (Letter No. 14410 dated 03.12.2016) is for G+4 category Residential apartment.
 - iii) The project proponent has obtained the permission for discharge of surface water and drain/rain water to the existing Municipal Corporation drain. However, the Rourkela Municipal Corporation has not given the permission to connect the sewerage pipeline to the existing Municipal Corporation drain.
 - iv) The project proponent plans to construct a 30KLD Sewage Treatment Plant, based on MBBR technology, on the western side of the premises.
 - v) The project proponent has planned to put 13 nos. of Rain Water harvesting Pits each of 168.71 m³ within the premises.
 - vi) The project proponent plans to put 85 nos of trees inside the project premises that includes 22 nos of Night Blooming Jasmine, 21 nos of Mango, 21 no. of Eucalyptus and 21 Neem trees.
 - vii) The Project proponent has applied for development of road in eastern and northern side of the project along with civic amenities.
24. The sub-committee recommended to take a decision regarding grant of EC after examining all the documents.


The SEAC decided to take decision on the proposal after receipt of the following from the proponent:


- i) Copy of permission letter issued by Rourkela Development Authority vide Letter No. 1910/RDA dated 10.05.2017 for B+G+6 storeyed building.
- ii) Copy of NOC issued by Rourkela Municipal Corporation vide Letter No. 14410, dated 03.12.2016 for G+4 category Residential apartment.
- iii) Detailed built up area calculation for B+G+6 storeyed building.
- iv) Detailed built up area calculation for B+G+7 storeyed building, for which Environmental Clearance has been applied.



SRI B.P. SINGH
CHAIRMAN, SEAC


(DR.) D. SWAIN
MEMBER, SEAC


ER. K.R. ACHARYA
MEMBER, SEAC


SRI. J. K. MAHAPATRA
MEMBER, SEAC


PROF.(DR.) B.K. SATPATHY
MEMBER, SEAC


DR. K.C.S PANIGRAHI
MEMBER, SEAC

APPROVED


CHAIRMAN, SEAC

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR KANTRABALI DECORATIVE STONE MINES OF M/S HINDUSTAN MINERAL INDUSTRIES OVER AN AREA OF 7.42 ACRES OR 3.003 HA. AT VILLAGE - KANTRABALI, TAHASIL - MUNIGUDA, DISTRICT - RAYAGADA OF SRI. HEMANTA KUMAR ROUT - EC

A. Specific Conditions

1. This EC for the proposal in the mine lease area of 3.003 ha. shall be operational after submission of an undertaking through affidavit to SEIAA, Odisha within 15 days of receipt of the EC letter for compliance of all the conditions prescribed herein.
2. EC for the proposal shall be operational after getting necessary approval from the CGWA.
3. Consent / NoC shall be obtained from the concerned village Sarpanch for use of village road for mineral transport. The said road shall also be maintained by the lessee.

B. Standard conditions

(I) Statutory compliance

1. 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.
2. The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.
3. The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors. This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project,
4. This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the project.
5. Project Proponent (PP) shall obtain Consent to Operate after grant of EC 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 concerned State Pollution Control Board.

6. The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.
7. The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made thereunder in respect of lands which are not owned by it.
8. The Project Proponent shall follow the mitigation measures provided in MoEF&CC's Office Memorandum No. Z-I1013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
9. The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.
10. A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
11. State Pollution Control Board shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
12. The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board and web site of the Ministry of Environment, Forest and Climate Change (www.environmentclearance.nic.in). A copy of the advertisement may be forwarded to the concerned MoEF&CC Regional Office for compliance and record.
13. The Project Proponent shall inform the MoEF&CC/SEIAA, Odisha for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

(II) Air quality monitoring and preservation

14. The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO₂; CO and SO₂ etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the

mine site.

15. Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/ Central Pollution Control Board.

(III) Water quality monitoring and preservation

16. In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF&CC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
17. Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug well located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
18. Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
19. The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-a-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEF&CC /

SEIAA, Odisha. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, SEIAA, Odisha, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

20. Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1 /2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
21. The project proponent shall construct retaining wall and settling pond within the lease area. Further, check dams shall be constructed at strategic locations in which rain water passes in rainy season. Finally, the excess supernatant after sedimentation shall be allowed to spill away through stone pitch structure to the nearby valley.
22. De-silting of agricultural lands in buffer zone and beyond including nearby Nalas/rivers perennially periodically and perpetually caused due to wash up of minerals/OB/dumps shall be done as per SOP submitted. A legal affidavit shall be submitted within 6 months from the date of issue of Environmental Clearance to this effect with periodicity of de-silting.
23. Detail design of the existing retaining wall and the proposed for the expansion from a chartered Civil Engineer shall be submitted within 6 months from the date of issue of Environmental Clearance to ensure that no silt after wash up is escaped from the core / buffer zone of the mines.
24. An area of 3.40Ha shall be kept for public use as pond and road. Hence, remaining 52.956Ha shall be planted during life of the mine in a phased manner i.e. within a period of 20 years.
25. Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office, MoEF&CC annually.
26. Industrial waste water (workshop and waste water from the mine) should be properly collected and treated in an ETP as proposed so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.
27. The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board.

(IV) Noise and vibration monitoring and prevention

28. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
29. The illumination and sound at night at project sites 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. PPs 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 /night hours.
30. The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The worker engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

(V) Mining Plan

31. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.
32. The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.
33. The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-a-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office / SEIAA, Odisha.

(VI) Land reclamation

34. The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.
35. The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.
36. The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.
37. The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
38. The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha.
39. Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and topsoil / OB / waste dumps to prevent runoff of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.
40. Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the comers of the garland drains.
41. The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps.

The topsoil shall be used for land reclamation and plantation purpose.

42. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

(VII) Transportation

43. No Transportation of the minerals shall be allowed in case of roads passing through transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.
44. The Main haulage road within the mine lease should be provided with a permanent water arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.
45. Traffic management shall be done as per recommendation of Traffic Management Study Report.

(VIII) Green Belt

46. The Project Proponent shall develop greenbelt in 7.5 m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.
47. The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.

48. The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.
49. The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.
50. And implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.

(IX) Public hearing and human health issues

51. The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEF&CC Regional Office and DGMS on half-yearly basis.
52. A commitment in form of an undertaking for periodical occupational health checkup of the employee and the local people shall be done through an occupational health expert as per the detailed action plan submitted with the proposal within 6 months from the date of issue of Environmental Clearance.
53. The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.
54. The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a

Certified Neurologist, and Manganese (Mn) estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x 14 inches and of good quality).

55. The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities, (c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1), Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.
56. The Project Proponent shall ensure that 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.
57. Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.
58. The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.
59. Issues raised and recorded in proceedings of public hearing w.r.t. environment / pollution / CER shall be complied by the Mining Authority as per OM F. No. 22-65/2017-IA.III, dated 30.09.2020 of MoEF&CC, Govt. of India.

(X) Corporate Environment Responsibility (CER)

60. The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by SEAC should be kept in a separate bank account. The activities

proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.

61. Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEF&CC and its concerned Regional Office / SEIAA, Odisha.

(XI) Miscellaneous

62. The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.
63. The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
64. The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MoEF&CC & its concerned Regional Office, SEIAA, Odisha, Central Pollution Control Board and State Pollution Control Board.
65. A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.
66. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
67. The project proponent shall augment infrastructure on drinking water, health care and education in nearby villages as per time bound action plan submitted.
68. The project proponent shall obtain permission from DGMS under 106(2b) to carry out blasting operation within the lease area.
69. The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.
70. 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.

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR KHEMABEDA DECORATIVE STONE QUARRY OVER AN AREA OF 12.21 ACRES OR 4.941 HA. IN VILLAGE KHEMABEDA TEHASIL- BAIPARIGUDA IN THE DISTRICT OF KORAPUT OF SRI HOTHAVENKATESH – EC

A. Specific Conditions

1. This EC for the proposal in the mine lease area of 4.941 ha. shall be operational after submission of an undertaking through affidavit to SEIAA, Odisha within 15 days of receipt of the EC letter for compliance of all the conditions prescribed herein.
2. EC for the proposal shall be operational after getting necessary approval from the CGWA.
3. Consent / NoC shall be obtained from the concerned village Sarpanch for use of village road for mineral transport. The said road shall also be maintained by the lessee.

B. Standard conditions

(I) Statutory compliance

1. 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.
2. The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.
3. The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors. This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project,
4. This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the project.
5. Project Proponent (PP) shall obtain Consent to Operate after grant of EC 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 concerned State Pollution Control Board.

6. The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.
7. The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made thereunder in respect of lands which are not owned by it.
8. The Project Proponent shall follow the mitigation measures provided in MoEF&CC's Office Memorandum No. Z-I1013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
9. The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.
10. A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
11. State Pollution Control Board shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
12. The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board and web site of the Ministry of Environment, Forest and Climate Change (www.environmentclearance.nic.in). A copy of the advertisement may be forwarded to the concerned MoEF&CC Regional Office for compliance and record.
13. The Project Proponent shall inform the MoEF&CC/SEIAA, Odisha for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

(II) Air quality monitoring and preservation

14. The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO₂; CO and SO₂ etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the

mine site.

15. Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/ Central Pollution Control Board.

(III) Water quality monitoring and preservation

16. In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF&CC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
17. Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug well located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
18. Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
19. The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-a-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEF&CC /

SEIAA, Odisha. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, SEIAA, Odisha, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

20. Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1 /2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
21. The project proponent shall construct retaining wall and settling pond within the lease area. Further, check dams shall be constructed at strategic locations in which rain water passes in rainy season. Finally, the excess supernatant after sedimentation shall be allowed to spill away through stone pitch structure to the nearby valley.
22. De-silting of agricultural lands in buffer zone and beyond including nearby Nalas/rivers perennially periodically and perpetually caused due to wash up of minerals/OB/dumps shall be done as per SOP submitted. A legal affidavit shall be submitted within 6 months from the date of issue of Environmental Clearance to this effect with periodicity of de-silting.
23. Detail design of the existing retaining wall and the proposed for the expansion from a chartered Civil Engineer shall be submitted within 6 months from the date of issue of Environmental Clearance to ensure that no silt after wash up is escaped from the core / buffer zone of the mines.
24. An area of 3.40Ha shall be kept for public use as pond and road. Hence, remaining 52.956Ha shall be planted during life of the mine in a phased manner i.e. within a period of 20 years.
25. Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office, MoEF&CC annually.
26. Industrial waste water (workshop and waste water from the mine) should be properly collected and treated in an ETP as proposed so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.
27. The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board.

(IV) Noise and vibration monitoring and prevention

28. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
29. The illumination and sound at night at project sites 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. PPs 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 /night hours.
30. The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The worker engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

(V) Mining Plan

31. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.
32. The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.
33. The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-a-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office / SEIAA, Odisha.

(VI) Land reclamation

34. The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.
35. The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.
36. The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.
37. The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
38. The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha.
39. Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and topsoil / OB / waste dumps to prevent runoff of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.
40. Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the comers of the garland drains.
41. The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps.

The topsoil shall be used for land reclamation and plantation purpose.

42. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

(VII) Transportation

43. No Transportation of the minerals shall be allowed in case of roads passing through transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.
44. The Main haulage road within the mine lease should be provided with a permanent water arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.
45. Traffic management shall be done as per recommendation of Traffic Management Study Report.

(VIII) Green Belt

46. The Project Proponent shall develop greenbelt in 7.5 m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.
47. The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.

48. The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.
49. The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.
50. And implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.

(IX) Public hearing and human health issues

51. The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEF&CC Regional Office and DGMS on half-yearly basis.
52. A commitment in form of an undertaking for periodical occupational health checkup of the employee and the local people shall be done through an occupational health expert as per the detailed action plan submitted with the proposal within 6 months from the date of issue of Environmental Clearance.
53. The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.
54. The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a

Certified Neurologist, and Manganese (Mn) estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x 14 inches and of good quality).

55. The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities, (c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1), Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.
 56. The Project Proponent shall ensure that 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.
 57. Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.
 58. The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.
 59. Issues raised and recorded in proceedings of public hearing w.r.t. environment / pollution / CER shall be complied by the Mining Authority as per OM F. No. 22-65/2017-IA.III, dated 30.09.2020 of MoEF&CC, Govt. of India.
- (X) Corporate Environment Responsibility (CER)**
60. The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by SEAC should be kept in a separate bank account. The activities

proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.

61. Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEF&CC and its concerned Regional Office / SEIAA, Odisha.

(XI) Miscellaneous

62. The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.
63. The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
64. The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MoEF&CC & its concerned Regional Office, SEIAA, Odisha, Central Pollution Control Board and State Pollution Control Board.
65. A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.
66. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
67. The project proponent shall augment infrastructure on drinking water, health care and education in nearby villages as per time bound action plan submitted.
68. The project proponent shall obtain permission from DGMS under 106(2b) to carry out blasting operation within the lease area.
69. The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.
70. 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.

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE OF M/S CHROME SAGAR FOR CHROME ORE BENEFICIATION UNIT OF THROUGHPUT CAPACITY 18,500 TPA & REFRACTORY MIX PLANT, AT VILLAGE PUBALA, DISTRICT OF JAJPUR, ODISHA - EC

I. Statutory compliance:

- (i) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- (ii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- (iii) The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report, (incase of the presence of schedule-I species in the study area)
- (iv) The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board.
- (v) The project proponent shall obtain the necessary permission from the Central Ground Water Authority and other concerned authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- (vi) The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

II. Air quality monitoring and preservation

- (i) The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.
- (ii) The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.

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- (iii) Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- (iv) The project proponent use leak proof trucks/dumpers carrying ore and other raw materials and cover them with tarpaulin.
- (v) Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- (vi) Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses. Oil Cellars.
- (vii) The project proponent shall carry out conditioning of the ore with water to mitigate fugitive dust emission, without affecting flow of ore in the ore processing and handling areas.
- (viii) Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of air pollutants such as haul road, loading and unloading point and transfer points. It shall be ensured that the Ambient Air Quality parameters conform to the National ambient air quality standards.
- (ix) The transportation of mineral shall be carried out through the covered trucks. Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in beneficiation operations and in transportation of ore to the beneficiation plant. The vehicles carrying the mineral shall not be overloaded.
- (x) Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
- (xi) Occupational health surveillance program of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed. Health records of the workers shall be maintained.
- (xii) Regular Ambient Air Quality Monitoring shall be carried out. The monitoring stations will be set up in consultation with the SPCB. At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of PM_{2.5}, PM₁₀, SO₂ and NO_x are anticipated in consultation with the State Pollution control Board. It will be ensured that at least one monitoring station is set up in up-wind & in down-wind direction along with those in other directions. The instruments used for ambient air quality monitoring shall be calibrated regularly.
- (xiii) Data on ambient air quality (PM_{2.5}, PM₁₀, SO₂, NO_x) shall be regularly submitted to the Ministry including its Regional office located at Bhubaneswar and the State Pollution Control Board/Central Pollution Control Board once in six months.

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III. Water quality monitoring and preservation

- (i) The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- (ii) Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- (iii) Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
- (iv) The project proponent shall practice rainwater harvesting to maximum possible extent.
- (v) The effluent from the ore beneficiation plant shall be treated in the tailing thickener and the tailings slurry shall be transported through a closed pipeline to the tailing pond.
- (vi) The tailing pond shall be lined with appropriate impervious lining on all sides as well as the bottom to prevent any leachate going from the tailing pond into groundwater.
- (vii) The garland drain shall be constructed around the tailing pond before the starting operation on the project.
- (viii) The decanted water from the tailing pond shall be re-circulated and there should be zero discharge from the tailing pond.
- (ix) Appropriate technology shall be used for maximum recovery of ore in order to reduce slurry discharge and to increase the life of the tailing pond.
- (x) Garland drains with appropriate size, gradient and length shall be constructed to arrest silt and sediment flows from ore dumps and directly into the water bodies. The water so collected shall be utilized for watering the roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
- (xi) Effluents containing Cr+6 shall be treated to meet the prescribed standards before reuse. Effluent Treatment Plant should be provided for treatment of wastewater generated from the beneficiation plant.
- (xii) Run off from the mineral and reject dumps and other surface run off should be analyzed for Cr+6 and in case its concentration is found higher than the permissible limit the water should be treated before reuse.
- (xiii) Adhere to "Zero Liquid Discharge".
- (xiv) Regular monitoring of water quality for surface water sources as well as ground water sources shall be carried out. The groundwater shall be monitored downstream of beneficiation plant as well as tailing pond upto groundwater table and record of monitoring data should be maintained and submitted on six monthly basis to the

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Ministry of Environment and Forests, its Regional Office, Bhubaneswar, the Central Ground Water Authority, the Regional Director Central Ground Water Board and the State Pollution Control Board.

- (xv) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.
- (xvi) Appropriate mitigative measures shall be taken to prevent pollution of the nearby surface water source in consultation with the State Pollution control Board.

IV. Noise monitoring and prevention

- (i) Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha as a part of six-monthly compliance report.
- (ii) The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time

V. Energy Conservation measures

- (i) Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- (ii) Provide LED lights in their offices and residential areas.

VI. Waste management

- (i) The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016
- (ii) Kitchen waste shall be composted or converted to biogas for further use. (/o be decided on case to case basis depending on type and size of plant)
- (iii) Separate impervious concrete pits for disposal of sludge shall be provided for the safe disposal of sludge generated from the beneficiation operation.

VII. Green Belt and EMP

- (i) Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
- (ii) The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
- (iii) Plantation shall be raised all around the beneficiation plant site and the tailing pond around the plant, tailing disposal area, roads etc. by planting the native species in consultation with the local DFO/ Agriculture Department.

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VIII. Human Health Issues

- (i) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- (ii) The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- (iii) Provision 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
 - a) 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.
- (iv) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

IX. Corporate Environment Responsibility

- (i) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-1 A.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- (ii) The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha as a part of six-monthly report.
- (iii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
- (iv) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha along with the Six Monthly Compliance Report.
- (v) Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out

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- (vi) All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Mineral Beneficiation plants shall be implemented.

X. Miscellaneous

- (i) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- (ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- (iii) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- (iv) The construction and demolition wastes to be generated from the proposed project shall be disposed of in accordance with the provision under "Construction & Demolition Wastes Management Rules 2016".
- (v) The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- (vi) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- (vii) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- (viii) The project proponent shall inform the Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- (ix) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

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- (x) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during their presentation to the State Level Expert Appraisal Committee.
- (xi) No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Odisha.
- (xii) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- (xiii) The SEIAA, Odisha may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- (xiv) The SEIAA, Odisha reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- (xv) The Regional Office, MoEF&CC, Govt. of India, Bhubaneswar shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- (xvi) The above conditions shall 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, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- (xvii) Any appeal against this EC 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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CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S FALCON REAL ESTATE PVT. LTD. FOR EXPANSION OF PROPOSED CONSTRUCTION PROJECT "FALCON CREST" MULTI-STORIED RESIDENTIAL COMPLEX COMPRISING OF ONE BLOCK OF INTEGRATED (B+G+16), AND ONE BLOCK OF (B+G) STORIED CLUB-CUM-SOCIETY BUILDING PROPOSED OVER PLOT NO. 800,803 & 829, KHATA NO. 223 & 83, OVER AN AREA 3.352 AC OR 13565 SQ.M AT MOUZA- SHYAMPUR, DIST- KHORDA OF SRI PARTHAJEET PATNAIK – 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 lightning 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 148 m³ per day.

10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of adequate nos. shall be provided.
17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.
18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

SOLID WASTE MANAGEMENT

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

22. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
23. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste generated from project shall be obtained.

SEWAGE TREATMENT PLANT

24. Sewage shall be treated in STP of capacity 200 KLD. The treated effluent from STP shall be recycled/re-used for flushing and gardening.
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 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
39. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
40. **Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.**

41. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
42. For indoor air quality the ventilation provisions as per National Building Code of India shall be provided.
43. Ambient noise levels shall conform to residential standard both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 22 % of plot area shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

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

TRANSPORT

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

49. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
50. A dedicated entry/exit and parking shall be provided for commercial activities.
51. Barricades shall be provided around project boundary.
52. Speed of the vehicles shall be restricted upto 15 kmph by erecting speed bumps at regular intervals at project site and proper signage shall be provided for guided vehicular movement and speed restrictions.
53. Parking shall be prohibited on the access road to the proposed project site.
54. Footpath shall be seamless with sufficient width.
55. No vehicles shall be allowed to stop and stand in front of the gate on main access.
56. A buffer of minimum 10 m shall be maintained between the entry/exit gate and the road to avoid traffic congestion.
57. The Traffic Management Plan prepared by the proponent shall be duly validated and certified by the State Concerned Competent Authority and shall have also their consent before implementation.

ENVIRONMENT MANAGEMENT PLAN

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

OTHERS

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

farmers to increase yield of crop and fodder, rain water harvesting, soil moisture conservation works, avenue plantation, plantation in community areas etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

PART B – GENERAL CONDITIONS

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

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

TERMS OF REFERENCE (ToR) FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

A. STANDARD TOR FOR MINING PROJECT

1. The Environmental Clearance will not be operational till such time the Project Proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors..
2. Department of Mining & Geology, State Government shall ensure that mining operation shall not commence till the entire compensation levied, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
3. Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
4. A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
5. All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
6. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
7. Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
8. Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
9. It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the proposed safeguard measures in each case should also be provided.

10. The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
11. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
12. Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
13. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
14. Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
15. Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
16. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
17. A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
19. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

20. Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered.
21. Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
22. R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs/STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine (lease area) will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
23. One season (non-monsoon) [i.e. March - May (Summer Season); October - December (post monsoon season) ; December - February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM₁₀, particularly for free silica, should be given.
24. Air quality modelling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
25. The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
26. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
27. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.

28. Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
29. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater, Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter- alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
30. Details of any stream, seasonal or otherwise, passing through the tease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be.
31. Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and BGL. A schematic diagram may also be provided for the same.
32. A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
33. Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
34. Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
35. Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
36. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
37. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
38. Measures of socio economic significance and influence to the local community proposed to

be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.

39. Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
 40. Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
 41. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
 42. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
 43. A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
 44. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
 45. The activities and budget earmarked for Corporate Environmental Responsibility (CER) shall be as per MoEF&CC, Govt. of India O.M No 22-65/2017-IA. II (M) dated 01.05.2018 and the action plan on the activities proposed under CER shall be submitted at the time of appraisal of the project included in the EIA/EMP Report.
 46. The Action Plan on the compliance of the recommendations of the CAG as per MoEF&CC, Govt. of India Circular No. J-11013/71/2016-IA.I (M), dated 25,10.2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.
 47. Compliance of the MoEF&CC, Govt. of India Office Memorandum No. F: 3-50/2017-IA.III (Pt.), dated 30.05.2018 on the judgement of Hon'ble Supreme Court, dated the 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India needs to be submitted and included in the EIA/EMP Report.
- B.** Besides the above, the below mentioned general points are also to be followed:-
- a) All documents to be properly referenced with index and continuous page numbering.
 - b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - c) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
 - d) Where the documents provided are in a language other than English, an English translation should be provided.
 - e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
 - f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006- IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.

- g) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
 - h) As per the circular no. J-11011/618/2010-IA.II (I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
 - i) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) Sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.
- C. The prescribed TOR would be valid for a period of four years for submission of the EIA/EMP report after conducting public hearing.**

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR CHHEND HERITAGE HOMES PVT. LTD. FOR STORIED A.H.P RESIDENTIAL APARTMENT BUILDING OVER AN AREA 3.30 ACRES IN KHATA NO. 9 & PLOT NO. 289/432 (P), 288 (P), 280(P), 292 (P), 291 (P), AT MOUZA- CHHEND, R.T.U-3, P.S. CHEND, TAHASIL- ROURKELA, SUNDERGARH. OF SRI ALOK SHARMA (DIRECTOR) - 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.
6. The kism of the land is "Patita". The proponent shall convert the land from "Patita" to "Gharabar"i kism before going for construction activity.

TOPOGRAPHY AND NATURAL DRAINAGE

7. 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.
8. 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.
9. 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

10. As proposed, fresh water requirement from ground water shall not exceed 260 m³ per day.
11. 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.

12. 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.
13. 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.
14. The proponent shall provide dual plumbing arrangement so that part of waste water can be reused in flushing etc. and rest for plantation and balance to municipality drain if unavoidable.
15. 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.
16. 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.
17. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
18. 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 adequate nos. shall be provided.
19. 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.
20. 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

21. The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
22. 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.
23. 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.

24. 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.
25. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste generated from project shall be obtained.

SEWAGE TREATMENT PLANT

26. Sewage shall be treated in STP of capacity 210 KLD. The treated effluent from STP shall be recycled/re-used for flushing and gardening.
27. 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.
28. 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.
29. 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.
30. No sewage or untreated effluent water would be discharged through storm water drains.
31. 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.
32. 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.
33. 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

34. 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.

35. 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.
36. 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. The proponent shall submit a legal affidavit for use of solar energy of 5%.
37. 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.
38. 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.
39. 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

40. 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.
41. 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.

42. **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.**
43. 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.
44. For indoor air quality the ventilation provisions as per National Building Code of India shall be provided.
45. 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

46. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed 2051 Sq.m (15% of total plot area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

47. 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

48. 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
49. 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.
50. 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.

51. 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.
52. A dedicated entry/exit and parking shall be provided for commercial activities.
53. Barricades shall be provided around project boundary.
54. 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.
55. Parking shall be prohibited on the access road to the proposed project site.
56. Footpath shall be seamless with sufficient width.
57. No vehicles shall be allowed to stop and stand in front of the gate on main access.
58. A buffer of minimum 10 m shall be maintained between the entry/exit gate and the road to avoid traffic congestion.
59. 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

60. 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

61. 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.
62. A First Aid Room shall be provided in the project both during construction and operations of the project.
63. The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.
64. As per the MoEF&CC, Govt. of India Office Memorandum F.No.22-65/2017-IA.III dated 1st

May 2018, the project proponent is required to prepare and implement Corporate Environment Responsibility (CER) Plan. As per para 6(II) of the said O.M. appropriate funds shall be earmarked for the activities such as infrastructure creation for drinking water supply, sanitation, health, education, skill development, roads, cross drains, electrification including solar power, solid waste management facilities, scientific support and awareness to local farmers to increase yield of crop and fodder, rain water harvesting, soil moisture conservation works, avenue plantation, plantation in community areas etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

PART B – GENERAL CONDITIONS

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

MoEF&CC, Bhubaneswar.

9. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
10. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
12. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC, Govt. of India by E-mail.